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UNIVERSITY OF ALBERTA

DROPPING OUT OF SCHOOL: PATTERNS OF EARLY SCHOOL LEAVING AND RESPONSIVE PREVENTATIVE MEASURES

BY

DAVID MACLEAN

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of MASTER OF EDUCATION.

IN

COUNSELLING PSYCHOLOGY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

Edmonton, Alberta

SPRING 1993

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submitted by David MacLean
in partial fulfillment of the requirements for the degree
of Master in Education.

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ABSTRACT

The three main purposes of this study were: (1) to compare academic-related variables of dropouts and nondropouts including intelligence and achievement scores, (2) to determine patterns of early school leaving, and (3) to find commonalities among certain dropout prevention strategies. Comparisons between dropouts and nondropouts were based upon school data provided by the Edmonton Catholic School District. The part of the study specifically dealing with early school leaving and preventative measures involved the dropout population only. Certain dropout students were asked to respond to Likert-style questionairres about why they had dropped out of school and which preventative measures might have kept them in school longer.

To examine possible differences between the dropout and nondropout populations, data analysis involved t-test comparisons of each set of variables. Data analysis of the responses of the early school leaving and preventative measures questionairres involved computation of means to identify the level of agreement with each item. Correlations and factor analysis were used to help establish evidence for relationship among the survey items of each questionairre.

Results indicated that there were no differences between dropouts and nondropouts with regard to intelligence measures. There were also no differences found with standardized achievement tests except for Grade Seven Mathematics. Significant differences between groups were found with teacher-assigned grades in Grade Ten and with frequency of school transfer. Using factor analysis, several patterns of school leaving were determined. As well, responsive preventative measures were categorized into two main groups, and appropriate interventions were discussed.

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TABLE OF CONTENTS

CHAPTER		Page
1	INTRODUCTION	1
2	REVIEW OF THE LITERATURE	5
	A. Dropout Rates and Dropout Definitions	5
	A.1 Computational Practice	5
	A.2 Definitional Practice	7
	A.3 Dropout Trends	10
	B. Background and Personal Characteristics of the Dropout	11
	B.1 Demographic	12
	B.2 Familial/Social	12
	B.3 Individual/Personal	15
	B.4 Academic/School	17
	B.5 Role Transition	19
	C. School-Related Factors and Dropout	20
	D. Developmental Processes and Dropout	24
	E. Asking Early School Leavers About Dropout	26
3	METHOD	33
	A. Samples	33
	B. Data Acquisition	33
	C. Data Analysis	37
	D. Delimitations of the Study	38

4	**RESULTS**	40
	A. Descriptive Statistics	40
	A.1 General Information	40
	A.2 Aptitude Scores	40
	A.3 Achievement Scores	44
	B. Statistical Comparisons Between Groups	44
	C. The Dropout Survey	47
	C.1 General Information	47
	C.2 Reasons for Leaving School Survey	51
	C.3 Preventative Measures Survey	56
	C.4 Relationship Among School Leaving Items	61
	C.5 Relationship Among Preventative Measure Items	67
5	**DISCUSSION**	73
	A. Research Question 1	73
	B. Research Question 2	76
	C. Research Question 3	79
	D. Research Question 4	81
	E. Research Question 5	84
	F. Implications	85
	G. Summary	91
	REFERENCES	93
	APPENDICES	
	A. Early School Leaving Survey -Reasons for Leaving School Items	98
	B. Early School Leaving Survey -Preventative Measure Items	99

LIST OF TABLES

TABLE		Page
1.	Number of Students Sampled for Each Variable	35
2A.	Means of Non-Test Variables for Dropouts and Nondropouts	41
2B.	Frequency of Age upon Completion of Grade Nine for Dropouts and Nondropouts	42
3.	Means of Aptitude Variables for Dropouts and Nondropouts	43
4.	Means of Achievement Variables for Dropouts and Nondropouts	45
5.	t-Test Comparisons of Non-Test Variables Between Dropout and Nondropout Groups	46
6.	t-Test Comparisons of Aptitude Variables Between Dropout and Nondropout Groups	48
7.	t-Test Comparisons of Achievement Variables for Dropout and Nondropout Groups	49
8A.	Month in Which Dropouts Left School	50
8B.	Grade in Which Dropouts Left School	52
8C.	Grade in Which Dropouts Began to Think About Leaving School	53
9.	Frequency of Response of Dropouts to Possible Reasons for Leaving School	54
10.	Percentage of Male and Female Dropouts Who Agreed with Each Reason for Leaving School Item	55
11.	Ranking of Contributing Factors for Leaving School	57
12.	Frequency of Response of Dropouts to Preventative Measure Items	58
13.	Ranking of Preventative Measure Items	59

14. Percentage of Male and Female Dropouts Who Agreed with Each Preventative Measure Item 60

15. Correlations Between Individual Reasons for Leaving School Items with All of the Survey Items as a Group 62

16. Correlations Among Reasons for Leaving School Items 63

17. Factor Analysis of Early School Leaving Items 66

18. Correlations Between Preventative Measure Items with All of the Survey Items as a Group 68

19. Correlations Among Preventative Measure Items 69

20. Factor Analysis of Preventative Measure Items 71

LIST OF FIGURES

Figure		Page
1.	Differences Between Dropouts and Nondropouts	74
2.	Reasons for Leaving School Items	77
3.	Reasons for Leaving School Differences	79
4.	Preventative Measure Items	80
5.	Preventative Measure Differences	81
6.	Early School Leaving Patterns	82
7.	Preventative Measure Clusters	84
8.	Early School Leaving Issues	88

CHAPTER 1

INTRODUCTION

The ability of a school to prevent its students from 'dropping out' is referred to as holding power. An important objective for any school is to hold on to its students and graduate as high a proportion of students as possible. Thus, the problem of early school leaving or 'dropping out' is a major concern for those involved in education. Dropping out is not a new phenomenon. Youngsters have left school for various reasons for as long as our communities have had schools and, likewise, educators have recognized for some time that dropping out is a troublesome aspect of school-related behavior. As a result, the subject of early school leaving has generated its fair share of research and debate during the last few decades. Today, the ramifications of dropping out for the school leaver are more complicated and viewed more critically and, correspondingly, this problem has gained increased prominence in both Canada and the United States.

Dropout rates have stabilized during the last decade, although rates still vary depending on ethnic and socio-economic background (Rumberger, 1987). So why has there been increased concern about early school leaving? Though overall rates have remained relatively unchanged, conditions within the world of employment and entry into it have changed dramatically in recent years. Gaining successful access into the labour force is more dependent upon obtaining a high school diploma than ever before (Canadian School Boards Association Newsletter, 1991). Technological advancement has insured that an increasingly higher proportion of jobs will rely on having some post secondary education (Employment and Immigration Canada, 1990). Generally, the dropout population will lack the skills and training necessary to compete successfully for steady employment, especially during times of economic restraint (MacKay, 1991). The net result will continue to be an over-representation of early school leavers who rely on unemployment and other

social programs. In the United States, and to a certain extent in Canada, there is also increased concern about early school leaving because of recent movements toward raising academic standards for students. This includes tougher attendance policy, a longer school day and a longer school year, and higher standards of school achievement (McDill, Natriello, and Pallas, 1985). These changes will impact upon all students, particularly those who are at-risk for dropping out of school.

Determining the extent of early school leaving has been an important part of dropout research. However, establishing dropout rates and dropout trends in Canada and the United States has been difficult for two main reasons: (1) definitions differ as to what constitutes dropping out, and (2) various computational methods are used to determine the rate at which students leave school early. Despite these statistical concerns, it is evident that in Canada one in three students drops out of school (Employment and Immigration Canada, 1990). Growing concern about early school leaving has prompted the federal government to implement a national program to help reduce the high school dropout rate. Similarly, in 1982, the United States government initiated a national research project with the mandate of finding out why students were leaving school. The project has included the funding of follow-up drop out prevention programs (Pelavin and Celebuski, 1988).

Research related to early school leaving has traditionally and largely involved two different approaches. One approach has emphasized the measurement of dropout rates and their correlation with such factors as socio-economic status, ethnicity or race, school ability or achievement, and stated reasons for dropping out. Another major strand of research has focused on the implementation of preventative strategies designed to keep students in school or to bring former students back to school. Research of this kind has attempted to assess the degree of success associated with various interventions targeted for at-risk and dropout students. The two traditional approaches complement one another. Preventative strategies are often

based upon those characteristics of dropouts that influence school leaving behavior. Another approach of dropout research that has recently emerged recognizes the role that school factors play in early school leaving. Aspects of school organization such as school size, attitude of teachers and administration, and quality of school environment are some of the features of the school that have been examined in relation to dropping out (Bryk and Thum, 1989).

The focus of this study was restricted to (1) comparisons between dropout and nondropout students of certain school-related characteristics including ability and achievement variables, and (2) analyses of responses of early school leavers to two separate survey questionairres which focused upon the nature of their school leaving. The purpose of the comparative part of the study was to determine if early school leaving could be explained, in part, by any differences that may have existed between dropouts and nondropouts with regard to school-related characteristics. The second part of the study was designed to include only the dropout group. The purpose of this part of the study was twofold: (1) to discuss with dropouts the factors associated with their early school leaving, and (2) to discuss with dropouts the preventative measures that could have prolonged their stay in school. Two main objectives of this study were meant to be fulfilled by analyzing the responses of early school leavers. The objectives were (1) to determine patterns of dropping out and the likelihood of each pattern of dropping out, and (2) to identify commonalities among and the desirability of various measures designed to reduce the incidence of dropping out.

This study involved an urban Alberta population of junior and senior high school students who had attended school within the Edmonton Catholic School District. The students were among those who had either graduated from high school in June, 1990 or had dropped out of school during the 1988-89 academic year. Comparisons between the dropout group and the nondropout group were limited to

those school-related variables that were made available by the Edmonton Catholic School District. For purposes of this study, five major research questions were examined:

(1) Are dropouts different from nondropouts with regard to school-related characteristics such as aptitude or achievement?

(2) What are the reasons that dropouts give that account for their early school leaving?

(3) What interventions, if any, could have helped dropouts stay in school longer?

(4) Are there identifiable school leaving patterns?

(5) Are there identifiable groups of interventions that can potentially help keep at-risk students in school longer?

CHAPTER 2

REVIEW OF THE LITERATURE

This review examines the literature related to early school leaving and limits its focus to the following topics: (A) Dropout rates and dropout definitions, (B) Background and personal characteristics of the dropout, (C) School-related factors and dropout, (D) Developmental processes and dropout, and (E) Asking early school leavers about dropout.

(A) Dropout Rates and Dropout Definitions

A survey of Canadian and American dropout data reveals wide discrepancies in reported dropout rates (Gadwa and Griggs, 1985; Rumberger, 1987; Statistics Canada, 1991). Reported Canadian national dropout rates vary by as much as 10 percentage points, while reported American national dropout rates vary by as many as 15 percentage points depending on the sources of data. Variance in reported dropout rates is mainly due to the use of (1) different methods for computing dropout rates, and (2) nonstandard guidelines for defining what a school dropout is (Morrow, 1986; Strother, 1986). Inconsistent definitional and computational practice has complicated efforts to determine trends in the dropout rate and estimate the magnitude of the dropout problem (Rumberger, 1987).

A.1 Computational Practice

In the United States there are several sources for obtaining national dropout data; two of the most common sources are the U.S. Census Bureau and the National Center for Education Statistics (NCES) (Hammack, 1986; Rumberger, 1987). The Census Bureau and the NCES, among other sources of statistical data, generally use two basic approaches for computing dropout rates: (1) cross-sectional, and (2) longitudinal (Wolman, Bruininks, and Thurlow, 1989). A cross-sectional approach gives the proportion of students who dropout during a particular year; a longitudinal approach follows a group of students, statistically, through a portion or

all of the high school years. Regardless of whether a cross-sectional or longitudinal approach is employed, a dropout rate is calculated by dividing the number of dropouts by the total enrollment originally identified.

Essentially, the difference between cross-sectional and longitudinal analyses lies with the number of years the student group will be followed. As mentioned earlier, a cross-sectional analysis looks at a time period or a cohort of one year; a longitudinal analysis examines a time period or a cohort of at least two years. The U.S. Census Bureau commonly reports dropout rates for two-year cohorts; in 1984, for example, the American dropout rate was 7 % for persons 16 and 17 years old, and 15 % for persons 18 and 19 years old (Rumberger, 1987). Dropout rates provided by NCES are calculated by comparing the number of graduates for a particular year to the number of students enrolled four years earlier. These comparisons are done on a state-by-state basis and are referred to as attrition rates. Because the Census Bureau regularly computes dropout rates for two-year cohorts and attrition rates for the NCES data cover a four-year period, the former rates are always lower than the latter. For example, in 1984, the American national average attrition rate was 27 % (Rumberger, 1987). The approaches used for computing dropout rates have different purposes; the Census Bureau data analysis determines the proportion of students of a certain cohort who drop out of school, while the NCES data analysis provides the rate of success (or failure) of educational systems for graduating its students (Rumberger, 1987).

The national drop out rate in Canada is commonly reported to be between 30 % and 33 % and is an example of a longitudinal analysis. These figures are supplied by Employment and Immigration Canada and "are derived from administrative data which relate the number of graduates from the final year of secondary school to the number of grade 9 students at the start of the academic year 3 years earlier" (Statistics Canada, 1991, p. 8). An example of a different type of analysis comes from

the 1991 School Leavers Survey conducted by Statistics Canada. Their analysis indicates a somewhat lower national dropout rate of 24 %. This rate is described as an 'Ever Left School' rate and is based upon the responses of a randomly selected cohort of students, 20 year-olds.

Methods of calculating dropout or attrition rates are straight forward, although correctly interpreting a dropout rate involves knowing the type and size of cohort. Reported dropout rates differ depending on whether age or class cohorts are used, and reported dropout rates are higher if the size of the cohort is larger. Unfortunately, as the cohort increases in size, the magnitude of error will likely increase as well. Accuracy becomes more questionable as the time period increases because of the difficulty associated with the tracking of students who continually move in and out of school districts and/or advance or fall behind a grade (Hammack, 1986). Limiting the size of a cohort also presents certain problems (Steinberg, Blinde, and Chan, 1984). The NCES dropout rate is based upon a cohort covering only four years, from Grade 9 through Grade 12, so those adolescents who leave school before the ninth grade are omitted from the data and the true proportion of adolescents who drop out is underestimated.

A2. Definitional Practice

Though computational practice contributes significantly to the variance in reported dropout rates, inconsistent definitional practice accounts for even more (Hammack, 1986; Morrow, 1986). In Canada, the administrative estimate of drop out rates provided by Employment and Immigration Canada "considers anyone who did not graduate from Grade 12 to be a dropout, while respondents to the School Leavers Survey (Statistics Canada) may have considered themselves a graduate if they received a certificate after completing Grade 10" (Statistics Canada, 1991, p. 9). The magnitude of the administrative rate can also be influenced by whether special

education students are included or excluded in graded enrollment, particularly at the Grade 9 level.

> In the U. S., the federal government defines a dropout as a student who leaves a school, for any reason except death, . . . who has been in membership during the regular school term, and who withdraws . . . before graduating . . . or completing an equivalent program of studies . . . whether dropping out occurs before or after compulsory school attendance age (Barber and McClellan, 1987, p. 264).

By itself, the U. S. federal definition seems clear, but definitional ambiguity becomes an issue when various state definitions are considered. For example, in many states, although not federally, a student who attends an alternate or equivalency program, rather than a regular program, is classified as a dropout (Rumberger, 1987).

Differences with respect to school dropout definition are not confined to U. S. federal and state interpretations. Barber and McLellan (1987) examined how 17 large American city school districts gathered and reported dropout data. The primary focus of the study was to evaluate the level of consistency of school district policy regarding school dropout definition. They found that when students had left school prematurely due to reasons related to either marriage, medical problems, physical or mental incapacity, hospitalization, transfer, or death, there was widespread disagreement as to which reasons fell within the definitional boundaries of dropping out. A related problem with dropout definition concerns classification of those youngsters who have not officially withdrawn from school, but whose attendance is so infrequent that they could be considered to be permanently absent. Here, as well, school district policy varies widely with respect to the frequency and duration of truancy and when persistent absence constitutes an official withdrawal from school (Morrow, 1986).

The unavailability of a common school dropout definition is largely due to the multitude of possible reasons students have for leaving school. Further complicating the problem for school districts is the need to classify the status of students who

withdraw from school and then, at a later date, resume their schooling. These individuals re-enter at different times; some come back to school during the same school year, while others wait several years before returning. An increasing number of individuals are returning to school and obtaining a high school diploma (Wolman et al, 1989). This does not include those students who seek high school equivalency by taking the General Educational Development (GED) examination nor students who resume their high school education on a part-time basis. Almost half (47 %) of all the Canadian dropouts who responded to the School Leavers Survey indicated that they had returned to school at some time after dropping out (Statistics Canada, 1991). Addressing the following two questions should help clarify a school dropout definition: (1) Are students who pursue nontraditional avenues of high school education or who pursue equivalency deemed to be dropouts?, and (2) How long an absence from the school system constitutes dropping out? Currently, there is no standard policy among American school districts (Wolman et al, 1989).

To help make sense of the many concerns about school dropout definition, it is useful to categorize the concerns as either technical, practical, or political in nature (Natriello, Pallas, and McDill, 1986). The term 'technical' describes problems with the actual task of collecting data. Difficulty arises with data collection because students who leave school tend to be a part of a transient population, and schools or school districts do not always have the resources to track these students and obtain relevant information (Morrow, 1986). 'Practical' concerns refer to problems with implementing similar and consistent methods of record-keeping when standard practices are nonexistent. Definitions of school dropout often change from year to year or reflect local interpretations (Strother, 1989), and even if dropout data are dutifully recorded, comparisons with other districts can be meaningless because of definitional inconsistency (Hammack, 1986). 'Political' problems reflect the different perspectives that various subgroups within an educational system may

have. Problems may involve both overt and covert attempts to exaggerate or minimize true dropout rates (Natriello et al, 1986), and definitions are often changed or altered to match more effectively the purpose for which dropout statistics are kept (Strother, 1989). This may occur when individual schools are accountable to school boards and dropout data is subject to evaluation and, at the same time, the data is used by the state for purposes of comparison and research (Morrow, 1986).

A.3 Dropout Trends

Interpreting dropout rates involves an understanding of the type of statistical analysis done and an appreciation of the difficulty inherent in dropout definition. Dropout rate variations and dropout trends should be viewed cautiously, although certain trends are evident and should be noted. The U. S. dropout rate has decreased from 90 % in 1900 to 25 % in 1980 (Grossnickle, 1986), and most estimates indicate that the frequency of early school leaving has remained steady since 1970, with reported rates falling within the 25 % to 30 % range (Steinberg et al, 1984). These rates are attrition rates and refer to the incidence of dropout during the four high school years. Dropout statistics from both the U. S. Census Bureau and NCES also indicate that the incidence of school withdrawal has stabilized (Rumberger, 1987). The dropout rate for persons 16 and 17 years old was 8 % in 1968 and 7 % in 1984 , while the dropout rate for persons 18 and 19 years old was 16 % in 1968 and 15 % in 1984. American school leaving rates based on state-level attrition data showed a modest increase from 23 % in 1972 to 27 % in 1984.

During the last decade, the Canadian dropout rate has been estimated at slightly above 30 %. In 1991, the School Leavers Survey indicated that the national school leaving rate was 24 % based upon a specific age cohort. As discussed earlier, the variability in rates is due to differing definitional practice and not to real changes in the rate of school leaving. Caution is also necessary when comparing provincial dropout rates from data derived at the provincial level due to nonstandard

calculation procedures. Provincial comparisons with data from the recent School Leavers Survey should be more reliable because the statistics are derived from responses of Canadian dropouts to the same questionairre. The survey indicated that the highest rate was found in Quebec (27 %), while the lowest rates were found in Alberta and Saskatchewan (16 % and 17 % respectively); all of the western provinces had lower rates than the eastern provinces. Males dropped out at a higher rate than females (28 % vs. 19 %). The difference in dropout rates between males and females is most pronounced in the Maritime provinces (11 % to 18 %) and is lowest in the western provinces (1 % to 6 %). Across Canada, females graduate earlier and at a higher rate than males.

(B) Background and Personal Characteristics of the Dropout

The study of the background and personal characteristics of the dropout is based upon the premise that the high school dropout is 'different' from the student who stays in school and graduates. There is an assumption that knowing more about various demographic, social, and personal variables of the dropout will help guide the path of intervention strategies designed to reduce the number of adolescents who leave school early (Wehlage and Rutter, 1986). The investigation of dropout characteristics has continued despite the fact that dropout rates have stabilized over the last decade. Though overall rates are not changing, there is evidence of ongoing demographic shifts within the dropout population (Steinberg et al, 1984). Controlling for background and personal characteristics helps to isolate other possible influences of dropout behavior (Natriello et al, 1986). Many characteristics have been found to correlate with school leaving and for purposes of discussion they are categorized by the following descriptors: (1) demographic, (2) familial/social, (3) individual/personal, (4) academic/school, and (5) early role transition.

B.1 Demographic

After controlling for size of student population, early school leavers in the United States are more likely to be: Hispanic than black, black than white, economically disadvantaged, and from a large, urban centre with a heterogenous population (Ekstrom, Goertz, Pollack, and Rock, 1986; Hammack, 1986; Rumberger, 1987). American Census data show that in 1984 for persons 18 and 19 years old, the dropout rate varied from 15 % for whites to 17 % for blacks to 26 % for Hispanics (Rumberger, 1987). Dropout rates for males were higher than those for females regardless of ethnic background. Socioeconomic background as a variable provided the widest range of dropout rates -- 9 % for students in the highest SES group to 22 % for students in the lowest SES group. The Census data also reveal trends in dropout rates among ethnic groups. The dropout rate for whites has remained steady at 15 % between 1968 and 1984. During the same time period the dropout rate for Blacks fell from 25 % to 18 %, while the dropout rate for Hispanics fell from 39 % to 27 %. SES and ethnic background are the two factors most strongly associated with dropout (Ekstrom et al, 1986). However, ethnic background as a variable does not appear to predict dropout when other factors related to the family are controlled (Rumberger, 1983; Wehlage and Rutter, 1986).

B.2 Familial/Social

By the time a child begins his or her first year of formal schooling, influences of the family have impacted significantly upon the academic future of the young student. As the child progresses within the school, the family continues to play a critical role in determining the degree of success the child experiences. Not surprisingly, characteristics associated with the home life of the dropout have been thoroughly investigated. Several demographic characteristics are especially well-documented -family size, income level, parental marital status, language spoken at home, and parental educational attainment.

Larger family size correlates with increased incidence of dropout (Steinberg et al, 1984), but only for white families (Rumberger, 1983); family size does not predict dropout for children of a minority background. Reduced income level also predicts higher rates of school withdrawal (Steinberg et al, 1984). How family income impacts upon early school leaving is not clear, although families with a higher level of income generally live in wealthier neighbourhoods and communities where educational facilities are better financed and supported (Rumberger, 1983). Another factor to consider is that older children from low-income families often work to help support the family and this obligation may contribute to early school withdrawal (Stroup and Robins, 1972). The effects of parental separation or divorce should not be overlooked as a contributor to early school leaving. The incidence of persistent absenteeism and dropout is higher within broken-home families or households headed by a single parent (Ekstrom et al, 1986; Rumberger, 1983).

The dropout, compared to the stay-in, is more likely to come from a home where English is spoken as a second language (Rumberger, 1987). When other family factors are controlled, Hispanic youth still drop out at a higher rate than black or white youth (Steinberg et al, 1984). Though,

> whether an individual speaks English is far more important a determinant of dropping out than whether he or she comes from a non-English-speaking background; . . . we . . . find that individuals from homes where English is not spoken and who themselves do not speak English drop out at a rate four times that of individuals who are from an English language background (p. 116).

There also seems to be a definite relationship between the educational attainment of parents and the incidence of dropout (Gadwa and Griggs, 1985). Cervantes (1965) reported that in families of dropouts, 80 % of fathers and 70 % of mothers had also left school early, a significantly higher proportion as compared with parents of stay-ins. It follows that youth who come from families not having an educational tradition with its accompanying supportive environment are more at-risk to drop out. In a

related study, Rumberger (1983) found that the level of education of parents predicted dropout, but that the association was gender-related. Regardless of ethnic background, higher levels of education for the father were related to a lower incidence of dropout among male youth. Likewise, female black and white youth were less likely to withdraw from school as the level of education of the mother increased. The same-sex parent seems to serve as a role model for the pursuing of an appropriate level of education.

Several environmental aspects of family life play a role in early school leaving; these include the home learning environment, the quality of family dynamics, and the value the family places on educational attainment. The immediate learning environment of dropouts appears to be inadequate and inferior to that of stay-in students. The dropout reads less often, has less access to reading material and study aids, has fewer opportunities to experience out-of-school learning, and is monitored less frequently with regard to school-related assignments than the stay-in (Ekstrom et al, 1986; Rumberger, 1983). Children of this environment seem to become 'disadvantaged' with regard to the academic and social requirements of the school, not only because of an inadequate learning environment at home, but because they also have to compete with other students for 'status' in the school (Elliot, Voss, and Wendling, 1966).

The quality of family dynamics affects school withdrawal behavior. Dropouts are reported to experience more tension and punitiveness at home, and are less influenced by a father figure (Cervantes, 1965). They are also less likely to communicate with their parents about their daily experiences (Ekstrom et al, 1986). With regard to family dynamics, Howard and Anderson (1978) suggested that the fundamental characteristic of the dropout was an unhealthy relationship with his family, and Cervantes (1965) has expressed the same view: " the nuclear family is of

critical importance in the consideration of the dropout problem . . . the dropout is the problem, generally speaking, of an inadequate family" (p. 37).

The level of encouragement and support of families for educational attainment is related to early school leaving. Most parents of dropouts have either a negative or indifferent attitude towards education (Schreiber, 1964). They tend to believe that higher levels of education will not impact upon their child's future 'adjustment or success'. Mothers of dropouts, in particular, espouse low educational expectations for their children (Ekstrom et al, 1986).

B.3 Individual/Personal

Individual characteristics of the high school dropout are investigated, in part, because of hypothesized differences between dropouts and nondropouts (Sewell, Palmo, and Mann, 1981). Supposedly, if more is known about possible differences, then more will be known about why students leave school. Cognitive and academic ability, truant and delinquent behavior, and self-esteem and sociability represent some of the personal characteristics that have been studied.

On average, dropouts appear to have lower intellectual ability than stay-ins (Beck and Muia, 1980; Combs and Cooley, 1968; Sewell et al, 1981). Intuitively, it would seem that students who drop out, compared to those who stay in, would have more difficulty handling the academic demands of school because of intellectual limitations. However, most dropouts have ability within the average range and are capable of doing at least average work (Elliot et al, 1966; Howard and Anderson, 1978). Richardson and Gerlach (1980) found that black high school dropouts actually scored higher on tests of ability than black students who remained in school. Altogether, evidence suggests that intelligence does not play a major role in early school leaving. This is verified by studies indicating that 10 % to 15 % of dropouts have the ability to earn a college degree or have obtained intelligence test scores in the top one-third of their age category (Howard and Anderson, 1978).

Early school leaving has been found to co-exist with other 'early' developed behaviors. Activity that occurs either sooner or more frequently with high school dropouts includes 'riding around', dating, drinking, promiscuity, recorded delinquency, and drug use for males (Ekstrom et al. 1986; Friedman, Glickman, and Utade, 1985; Stroup and Robins, 1972). Males at-risk for dropout are also clearly above average in rebellious and delinquent behavior (Bachman, Green, and Wirtinen, 1972). They are often part of a group of adolescents that are formally or informally invited to leave school or they eventually leave on their own. Mensch and Kandel (1988) found that for females, early intercourse was highly related to dropout behavior. They suggested that extensive sexual experience represented a break from parental authority, a search for independence, and a rejection of commitment to school culminating in early school withdrawal. The Mensch and Kandel study also provided a detailed description of the relationship between drug usage and early school leaving. The main findings were that (1) use of cigarettes, marijuana, and other illicit drugs increased the likelihood of dropout among adolescents, (2) earlier usage of alcohol, marijuana, and other illicit drugs increased the likelihood of dropout among males, (3) earlier usage of cigarettes and marijuana increased the likelihood of dropout among females, and (4) dropout, in part, was a direct consequence of drug use itself. Characteristics such as lack of commitment to family and school are common to both substance users and school dropouts. Drug use provides for membership in a drug culture where nonconforming values are likely to be reinforced: "this may create pressure to engage in deviant activities other than drug use, such as disinterest in academic matters and truancy which, in turn, lead to school withdrawal" (Mensch and Kandel, 1988, p. 110). Drug use, in itself, can also produce adverse effects upon cognitive functioning and motivation which quite possibly contributes to disengagement from school and, consequently, dropout.

Psychological and social tendencies such as low self-esteem, little desire for self-growth, and limited commitment to accepted social values are characteristics commonly attributed to the early school leaver (Bachman et al, 1972). The dropout has also been found to be more impulsive, less mature, and less social than the stay-in (Combs and Cooley, 1968). Jones (1977) suggested that the lack of social and verbal skills of the dropout contributes to feelings of alienation toward society in general. Although described as a social isolate and a nonparticipant in the educational mainstream, the school leaver is still very likely to be part of a social network; potential dropouts often form friendships with others like themselves and who are also likely to withdraw from school (Cairns, Cairns, and Neckerman, 1989; Howard and Anderson, 1978). Not surprisingly, both dropouts and their close friends have been found to have low educational aspirations as compared to stay-ins (Rumberger, 1983). Dropouts also have been found to display a more externalized sense of control about life and future events than stay-ins (Ekstrom et al, 1986). Whether the measured characteristic is self-esteem, alienation, or locus-of-control, it is not clear to what extent the characteristic is present before school entrance or how much of it develops as a result of the school experience. Some research does provide a more positive view of the personal characteristics of the dropout. In an ethnographic study of early school leavers in New York City, Fine and Rosenberg (1983) described dropouts as less depressed, not as likely to conform, and more likely to speak out against an injustice than students still in school. However, most studies paint a rather negative portrait of the early school leaver; more often the dropout is described as fitting a 'loser' image (Bachman et al, 1972).

B.4 Academic/School

Poor academic performance consistently predicts premature withdrawal from school (Bachman et al, 1972; Beck and Muia, 1980; Combs and Cooley, 1968; Howell and Freese, 1982; Lloyd, 1978; Wehlage and Rutter, 1986). The development of

reading skills, a critical area of school performance, appears to be an especially troublesome area for future dropouts; generally, they read at a level two years behind their class-mates (Beck and Muia, 1980). Evidence also suggests that potential dropouts have more behavior problems and experience more disciplinary action in school compared to stay-ins (Ekstrom et al, 1986; Wehlage and Rutter, 1986); a considerable number of dropouts have been suspended from school at least once (Kaplan and Luck, 1977). Cairns et al (1989) found that aggressive behavior, poor achievement, and being older than peers each correlated positively with school withdrawal, but that having all three factors together significantly heightened the predictability of dropout.

> Boys and girls who were at high risk for dropping out had high levels of aggressive behavior and low levels of academic performance; over 80 % of the boys and 47 % of the girls who fit this (description) in Grade Seven dropped out before completing Grade Eleven (p. 1448).

Aggressive behavior and low academic performance are often linked together as contributors to dropout, but the nature of the relationship is unclear. Research has not clarified whether aggressive behavior inhibits or detracts from academic performance or whether poor academic performance leads to aggressive behavior or whether these two characteristics stem from other accompanying behaviors and circumstances that are also associated with dropout.

Although aggressiveness and defiance are highly visible behaviors, there are other less noticeable school-based behaviors that influence early school leaving. Excessive absence in elementary school, truancy in high school, nonparticipation in extracurricular activities, and frequent school changing have all been found to be more characteristic of the dropout compared to the stay-in (Cervantes, 1965; Ekstrom et al, 1986; Gadwa and Griggs, 1985; Stroup and Robins, 1972). All of these behaviors reflect unstable or inconsistent participation with some aspect of school life. If a stable learning and social environment is condusive to keeping students in school,

then persistent absenteeism, extracurricular nonparticipation, and interschool mobility will affect negatively the holding power of the school.

Generally, when a student is held back and retained in the same grade, the decision is based upon the academic progress and social maturity of the student. Nonpromotion policy is aimed to serve the best interests of the child, yet retention is a strong predictor of dropping out (Hammack, 1986; Steinberg et al, 1984; Stroup and Robins, 1972). Studies have shown that a majority of all dropouts have failed at least one grade, and that dropout is four times more likely for students who have repeated a grade compared to those who have never been retained (Bachman et al, 1972; Kaplan and Luck, 1977). Nonpromotion during the first three grades, in particular, has been shown to be a strong indicator of school leaving (Lloyd, 1978). There is a strong relationship between school withdrawal and the potential dropout's age in Grade Seven:

> Among subjects who were 1-3 years older than their peers by the time they reached the seventh grade, there was a higher likelihood of leaving school within the next 4 years; . . . over half of the white females who were 1 year older than peers in Grade 7 left school early, and one-third of white males who had been behind a year dropped out (Cairns et al, 1989, p. 1442).

How retention contributes to dropout is unclear. Children may experience early psychological damage when they are not promoted with classmates to the next grade (Bachman et al, 1972), but there is no evidence to suggest that the rate of early school leaving would be reduced if retention policies were abandoned.

B.5 Role Transition

Being pregnant, married, or employed represents a significant change in both role and status from being 'just' a high school student; getting pregnant, entering marriage, or working outside of school also increases the likelihood of early school leaving. Pregnancy, in particular, is a powerful predictor of dropout (Ekstrom et al, 1986; Mann, 1986). Kenney (1987) reported that " only half of the women who first

gave birth at age 17 -and even lower proportions of those who gave birth at a younger age- had completed high school by their twenties" (p. 728). Even when SES, academic ability, and motivational factors were controlled, young mothers were still less likely to graduate from school.

Marriage also prompts some students to withdraw from school, especially young females. McDill, Natriello, and Pallas (1985) found that 33 % of white female students and 20 % of minority female students, but only 7 % of male students left school for marriage reasons. Marriage, by itself, is rarely the precipitating or central factor in dropout, but is usually symptomatic of and interrelated with other circumstances responsible for or associated with dropout (Ekstrom et al, 1986).

Almost half of all Grade Ten American high school students work for pay while going to school (Ekstrom et al, 1986). A survey of an urban high school in Nova Scotia showed that 63 % of students had a part-time job (Aviso, 1989). Students who choose to work outside of school do so either out of family necessity or personal desire (Mann, 1986). Regardless of the motivation behind the decision to work, the risk of dropout increases with the number of hours worked. Evidence indicates that the likelihood of dropout begins to increase significantly when students work at least fifteen hours per week (Barro, 1984). Many working high school students fall into the at-risk category; working Grade Twelve students average between fifteen and eighteen hours of work per week (D'Amico, 1984). Dropouts also work longer hours and find work more enjoyable and important than working students who stay in school (Ekstrom et al, 1986).

(C) School-Related Factors and Dropout

The relationship between school-related factors and early school leaving has gained more prominence as a specific area of research. For example, traditional scheduling patterns, as compared to semestered scheduling patterns, have been studied and found to be related to higher rates of school withdrawal (Sharman, 1990).

Various aspects of school policy and practice, as well as organizational and structural features of the school, have been examined in relation to dropout behavior. Research has recently begun to view early school leaving as a developmental process that involves both student and school dynamics. Rather than trying to interpret dropout only in terms of the various background characteristics of the school leaver, there has been a shift in focus to consider the effects of school characteristics and school processes, as well.

Wehlage and Rutter (1986) investigated how general school policy and practice might affect students at-risk for dropout. Student responses from the High School and Beyond data base of the 1980 sophomore cohort were analyzed -responses of three groups of students, dropouts, stay-ins, and college-bound, were represented. A majority of students within each group were found to be dissatisfied with three aspects of the school: (1) teacher interest in students, (2) effectiveness of discipline, and (3) fairness of discipline. Furthermore, the dropout group reported that they were less satisfied about their educational progress, subject to more disciplinary measures, and absent from class more often than stay-in group of students. Within an atmosphere of general student dissatisfaction, at-risk students were particularly vulnerable to school disciplinary action. Wehlage and Rutter suggested that " it (was) crucial to view the dropout problem as growing out of conflict with and estrangement from institutional norms and rules that are represented in various discipline problems" (p. 381).

The study by Wehlage and Rutter (1986) represented an initial attempt to view early school leaving from a school process perspective. Their conclusions were based upon analyses of student responses and not upon actual school effects. Bryk and Thum (1989) studied the effects of high school organization on both absenteeism and dropout by investigating directly the structural and normative features of the school. They found that there was less student absenteeism and a lower incidence of

dropout when teachers were perceived as being interested in students, academics were stressed, and the social environment of the school was orderly. Rates of absenteeism and dropout were also lower when the student population was more homogeneous with respect to various background characteristics, and when schools responded to differences among students in a strong normative fashion; on the other hand, when students pursued diverse courses of study within socially diverse schools there were higher rates of dropout. Dropout rates were also associated with larger schools; organizational variables that correlated with school size included greater incidence of teacher disinterest and absenteeism, student discipline problems, and academic tracking or streaming. It seems these variables, which are more likely to be characteristic of larger schools, negatively influence the social atmosphere of the school and possibly contribute to higher rates of dropout.

The effect of school size appears to be indirect in that school size influences the quality of the social climate of the school. Larger high schools also have reduced levels of student participation in school activities, lower rates of attendance, and less expressed student satisfaction with school (Bryk and Thum, 1989). These characteristics are all associated with early school leaving. Pittman and Haughwout (1987) specifically studied the relationship between high school size and dropout rates and found that increases in student population corresponded with increases in the rate of dropout. Almost all of the variability in dropout rate was attributable to the quality of school social climate; the two most influential variables of social climate were the magnitude of school problems and the level of participation in school activities. School size appears to affect the social environment of the school, primarily, by limiting opportunities of integration and identification with the school.

Many believe that the fundamental and underlying problems of dropout go beyond those simply inherent in either student or school characteristics. Some

describe dropout as a symptom of the school's failure to provide a meaningful education and a curricula that reflects the lived experiences of a lower class world (Beck and Muia, 1980; Kaplan and Luck, 1977). The social mismatch between the dropout and the school has been repeatedly emphasized as a factor in early school leaving (Bachman et al, 1972; Beck and Muia, 1980; Kaplan and Luck, 1977). Elliot et al (1966) espoused the view that family life of lower class youth does not provide characteristics and values necessary for successful performance at school. On the other hand, socialization within middle-class homes corresponds with social norms and practices found within the school. Evidence indicates that many capable, lower-class youth are not able to compete with middle-class youth with regard to the academic and informal requirements of school. As these 'socially-deprived' youth become increasingly aware of their lack of fit with the middle-class values of the school, their response is to gradually withdraw from the school. The likelihood of dropout heightens if they associate with other school leavers and if their family does not provide educational support.

Beck and Muia (1980) suggested that the crux of the dropout problem is that the school, which serves the needs and requirements of a middle-class culture, forces the potential leaver to abandon his identity. The lower-class child has difficulty adapting to the middle-class standards of the school where obedience, docility, and scholarship are rewarded. A cyclical process of disengagement then begins; the child refutes the system and the system deems unacceptable the morals, attitudes, and behaviors of the child. The potential dropout appears to be incapable or unwilling to conform to the standards of the middle-class school. Fine (1986) interpreted dropout as an act of resistance, an unwillingness to conform or accept what the school has to offer and, in many cases, as the end product in a process of disillusionment with educational promises. Others see dropout as the culmination of a gradual process of disillusionment with the school as a vehicle for social mobility (Richardson and

Gerlach, 1980; Sewell et al, 1981). Many dropouts become aware that gender, race, and class are better predictors of one's future occupational status than level of education (Fine and Rosenburg, 1983). According to Fine (1986), the structure of the school promotes control, authority, and competition which serves to prevent students from having a voice in school matters. Her research suggests that students who have problems with the middle-class structure of the school are more likely to be labelled as 'difficult' and these students are often the ones 'pushed out' by school administration.

(D) Developmental Processes and Dropout

Literature related to dropout behavior has emphasized three main elements of early school leaving: (1) the influence of family, (2) the personal world of the individual, and (3) the structure and process of the school. More recently, research has recognized the importance of the developmental processes involved with and the interrelationship among family, individual, and school-related factors.

Several U. S. national studies using longitudinal data have indicated that family background characteristics are powerful predictors of dropout (Wehlage and Rutter, 1986). The relationship between SES and dropout, in particular, is well-established. It is recognized that the physical and psychological aspects of poverty make educational progress for the young student very difficult. Lower-class families are unable to provide stimulating materials such as educational books and toys, and they are more likely to be unaware of extra-curricular opportunities (Kaplan and Luck, 1977). However, other family variables, besides low SES, also impact upon early school leaving. Rumberger, Poulos, Ghatak, Ritter, and Dornbusch (1990) have investigated some of the underlying family dynamics and processes that contribute to dropout. They found that parents of dropouts were more likely to exercise a permissive parenting style. In this type of household, adolescents made more decisions on their own or with peers, rather than in consultation with their parents.

Without strong parental influence, undesirable social attitudes and behaviors are more apt to develop, possibly leading to poor attendance, disciplinary problems, and, eventually, dropout. Parents of dropouts were also more likely to use extrinsic punishment and negative emotion in response to the academic progress of their children. Rumberger et al (1990) suggested that this could negatively affect the internal motivation of the student and lessen the desire to remain in school. As well, parents of dropouts were less likely to be involved in the education of their children. This is reflected in lower levels of participation in the school activities of their children which included providing guidance or help with homework. The main conclusion drawn from the study was that a permissive parenting style, negative parental reaction, and reduced parental academic involvement were contributors to low school achievement -the implication being that low achievement predicts premature school withdrawal.

In many cases, dropout represents the final act of a long and gradual process of disengagement from the school. Behaviors that occur earlier, such as truancy and delinquency, are powerful predictors of dropout and are also symptomatic of the withdrawal process. Early school leaving is a process that spans many years (Rumberger, 1987). Finn (1989) has presented a model which attempts to explain dropout behavior within a developmental context. The model views early school leaving as a function of a student's involvement in school; involvement encompasses both student identification and student participation with various aspects of the school. Student identification with the school includes two important elements: (1) the idea of belongingness and (2) the idea of valuing success in scholastic terms. In a negative sense the potential dropout is seen as being deficient with regard to internal feelings of belongingness and behavioral signs of commitment; identification for the adolescent is realized through behaviors such as delinquency, truancy, and dropout. Finn views identification as the emotional component, and

participation both as the behavioral component and the avenue the student pursues to express his internal states of "belongingness' and 'valuing'. He described four levels of participation that are potentially available to the student: (1) responses to teacher-initiated directions, (2) self-initiated academic participation, (3) extra-curricular participation, and (4) participation in school governance.

According to Finn, a successful developmental cycle begins when children, who have necessary ability requirements and family encouragement, participate with teachers who provide at least adequate and appropriate instruction. This leads to successful school performance which promotes a sense of identification with the school and further participation. As the child progresses through school, further levels of participation are experienced and the cyclical nature of the process continues. On the other hand, youngsters, who lack encouragement and other supports, may resist engaging in class participation or become nonparticipatory due to unsuccessful performance. As further opportunities become available, the student is unwilling or unable to become involved, decreasing the likelihood of identifying with the school. Eventually the student becomes at-risk for withdrawing completely from the school.

(E) Asking Early School Leavers about Dropout

While the study of early school leaving has generated much information about dropout rates, dropout characteristics, and features of the school that contribute to school leaving, a more difficult pursuit of dropout research has involved finding specific causes of school leaving. The most direct approach to help answer the question, " Why do dropouts drop out? ", has been to ask early school leavers to describe the factors that impinged upon their decision to drop out of school. Rather than focusing on statistical relationships between the background characteristics of dropouts and the likelihood of dropping out, this approach places emphasis on dropouts, themselves, and what they believe contributes to early school leaving. The

responses of dropouts have to be interpreted cautiously though, because more salient reasons are more likely to be reported as contributing factors, and dropouts may not recognize the importance of less obvious influences. Not withstanding the bias and misperception that may accompany affective, self-report data, this approach allows for a personal account of perceptions and feelings which usually are not obtained in a less direct manner. Self-report strategies vary considerably; they include the use of closed checklist questionairres to open-ended ethnographic techniques.

When a self-report approach is used, dropouts are usually asked to indicate the primary reason for leaving school, or they are asked to indicate all of the significant reasons that influenced their decision to leave school. Early school leavers have cited a number of reasons for dropping out of school; the reasons can be categorized as either (1) school-related, (2) work-related, or involving (3) family or personal matters. An American study by the National Longitudinal Survey of Youth Labor Market Experience found that when high school dropouts were asked to give the primary reason for leaving school, 44 % of the responses were school-related (Rumberger, 1983). Work-related reasons accounted for 20 % of the total, while 17 % were of a personal nature. A Canadian study by Cipywnyk, Pawlovich, and Randhawa (1983) showed that 43 % of high school dropouts gave school-related reasons as the main reason for leaving school. Financial and economic reasons accounted for 22 % of the total, while personal reasons were listed by 10 % of the respondents. Other American and Canadian studies reveal the same general pattern of responses (Barber and McClellan, 1987; Bearden, 1989; Decima, 1987; Ekstrom et al, 1986; Goldfarb, 1987; Pittman, 1986; Strother, 1986; Tidwell, 1988; Weiss, 1984). Although school-related reasons are given most often by dropouts as main contributors to their school leaving, the influence of school-based factors in dropout still may be underestimated. Dropouts may list financial or personal reasons because they have been experienced

most recently, without acknowledging the significance of school-related factors that occurred earlier.

Many different reasons fall within the school-related category of reasons given by dropouts for leaving school including poor grades or performance, a dislike of or bored with school, chronic absenteeism, and expulsion or suspension. Ekstrom et al (1986) reported that 33 % of American high school dropouts left school, in part, because they did not like school, 33 % said poor grades were a factor, 15 % could not get along with teachers, and 10 % were expelled or suspended. When dropouts in an American rural school system were asked to provide major reasons for quitting school, lack of interest or boredom was given as a reason by 34 % of the respondents, failing grades was given by 24 %, and dissatisfaction with a teacher or principal was given by 18 % (Pittman, 1986). In other studies of both large-city school districts and state-wide school systems, absenteeism, poor grades, and disinterest in or boredom with school headed the list of reasons given for leaving school (Barber and McClellan, 1987; Bearden, 1989). A Canadian study by Weiss (1984) found that almost one-third of early school leavers in Northern Alberta said they left school because they had no interest in school and one in five dropouts indicated that poor grades was a factor in dropout. In the School Leavers Survey conducted by Statistics Canada, dropouts substantiated that difficulty with school work and problems with teachers does not rank as highly as boredom with school as the main reason for leaving school. Generally, students leave school not because they cannot meet academic demands, but because they are 'bored' with school and would prefer to be working.

Dropout due to work-related reasons seems to be motivated by either the desire to work or the necessity of work because of financial need. The 1991 School Leavers Survey reported that 20 % of dropouts chose work as an alternative to school, while 8 % had to work to support their family; these percentages are representative of other studies as well (Decima, 1987; Goldfarb, 1987; Rumberger, 1983). Choosing to work,

rather than remaining in school, could also be interpreted as a school-related reason for leaving school. Dropouts who say that the primary reason for leaving school is work-related usually go through some sort of decision-making process that includes weighing the relative importance of schooling and work in terms of their immediate future. It makes sense that work, as an alternative, would not be as inviting if schooling was seen as a worthwhile investment of time.

Personal reasons for leaving school include those related to pregnancy, marriage, health problems, and family matters. Depending on social and ethnic background, 5 % to 23 % of females list pregnancy as responsible for dropout (Ekstrom et al, 1986; Pittman, 1986; Rumberger, 1983). Recent survey data showed that 9 % of Canadian female respondents indicated pregnancy or marriage as the main reason for leaving school (Statistics Canada, 1991). Personal reasons, and marriage, in particular, are mentioned by females significantly more often than males. Overall, personal reasons rank far lower than school- or work-related reasons as the primary reason given for leaving school.

Early school leavers provide many different reasons for dropping out, although most of them can be interpreted in some way as school-related. The primary purpose of asking dropouts to provide their reasons for leaving school is to more fully understand the motivation behind dropout behavior. Unfortunately, simply asking dropouts to state specific reasons for why they left school may not help the search for a better understanding of the processes involved in dropout. Getting pregnant or finding a job or disliking school are reasons given by dropouts for leaving school, but these reasons do not explain the underlying causes of dropout. Most often these reasons are symptoms of dropout or they are the reasons most salient to the school leaver at the time of being interviewed. Also, dropout is rarely due to one factor and, almost always, is the end result of the effects of a combination of several influences interacting over many years. Researchers who are interested

in a broader perspective of dropout behavior often employ ethnographic techniques or, at least, more open-ended questioning strategies to elicit more comprehensive responses as to why young people leave school early.

In an ethnographic study of New York City dropouts, Fine (1986) used observations, surveys, and interviews to gather information about early school leaving. She suggested that there were four types of circumstances under which students dropped out of school. One group of leavers sensed very strongly that school had become a worthless vehicle for establishing a place for them in the labour market. As Fine (1986) said, "they leave school with an articulated critique of schooling and pedagogy" (p. 396). To these students, school had become unimportant and pointless in relation to their future goals. Other leavers, identified as a group, were those that felt obliged to help their families as financial supporters or care givers. Unlike the first group, school had not driven them away, but was seen as irrelevant to their immediate needs. Another group of dropouts were neither repelled by school nor did they leave because of obligations elsewhere. These students left because they felt they could not succeed at school due to their own academic or intellectual limitations. They left on their own volition without emotion and direction. A final group differed from the previous one in that they were forced out of the educational system. These were the chronic absentees and they were thrown out or 'pushed out' and encouraged not to come back.

Farrell, Peguero, Lindsey, and White (1988), also using an ethnographic approach, found that boredom and pressure were cited most often by dropouts as contributing to their leaving of school. School was seen as another pressure with which they had to cope, along with pressures from their peers and families, and anxieties about their own impulses and occupational plans. Farrell et al (1988) suggested that boredom and pressure were related; boredom was an avenue for students to disassociate from and eventually opt out of school. For dropouts, classes

were deemed boring because of process rather than content; over time, school became uninteresting and unimportant and dropping out became the final step of a process that began many years earlier.

A Canadian ethnographic perspective of early school leaving is provided by Reich and Young (1975). They used open-ended interviews to gather information about dropout-related behavior from a population of early school leavers in Southern Ontario. The aim of the study was to characterize dropout in terms of different behavior profiles. Reich and Young (1975) found that dropout behavior could be categorized into six different types. The vast majority of the dropouts were described as classic dropouts or work-oriented dropouts. Classic dropouts had earned very few credits, felt increasingly alienated from school, disliked school rules and regulations, and habitually skipped classes. Work-oriented leavers were those that usually obtained borderline passes, were reasonably satisfied with school, but chose to opt out when a suitable job presented itself. A significant, but smaller, percentage of the dropout population were identified as 'family-supporter' or 'homemaker' dropouts. Family-supporter dropouts were those that left school to help their families financially. They had done fairly well at school, but were usually behind in obtaining credits. Homemaker dropouts left school to get married. Academically they were marginal students, but reported that school was a good experience. The remainder of the dropouts were labelled as 'culturally-isolated' and 'intellectually-elite' and they represented a very small fraction of the total dropout population. The culturally-isolated dropouts were described as having language problems and being socially isolated from other students. The intellectually- elite dropouts had a history of high achievement, but also had rebuked the system.

When dropouts are invited to speak for themselves they give a unique personal perspective of early school leaving. Most dropouts say they leave school because they are bored with school and/or they do not like school; many dropouts

feel unsuccessful and alienated. A significant number of these adolescents choose options that are seen as more attractive than staying in school; others drop out without 'choosing' to do so. Allowing school leavers an opportunity to tell their story further develops an appreciation of the compexities of the dropout phenomenon and emphasizes the importance of the role that school-related factors play in the dropout process.

CHAPTER 3

METHOD

(A) Samples

Two separate samples of students were obtained for this study: (1) a dropout sample, and (2) a nondropout sample. The dropout sample was comprised of 75 students who had left the Edmonton Catholic School District during the 1988-89 school year. For the purpose of this study, a school dropout was defined as a student who: (1) was enrolled in school during the previous year, (2) did not graduate from high school, (3) did not transfer to another school district, private school or other approved educational program, and (4) was not suspended, expelled or excused from school due to illness. The nondropout sample was comprised of 80 students from the Edmonton Catholic School District who had completed all requirements necessary for Grade Twelve graduation by June, 1990.

(B) Data Acquisition

In September of 1989, Mr. William G. Hart, Superintendent of Student Services of the Edmonton Catholic School District, was contacted about the feasibility of implementing a research study to assist in determining why some students leave school before completing their high school education. Approval was granted by the school district in October of 1989. A computer-aided search of school enrollment data indicated that 595 junior and senior high school students had left the school district during the 1988-89 school year. School records provided the following information for each student who had left the school district: (1) student name, (2) school attended, (3) grade, (4) parent(s) name(s), (5) address, and (6) phone number. During a three-week period of time in May of 1990, various attempts were made by telephone to contact each individual who had left the school district; these individuals had been out of school for a length of time between twelve and twenty months. More than half of the former students no longer had the same phone

number or address that was listed on the school data list and could not be contacted. Many students had transferred to another school district; some of those contacted were unwilling to participate. Of the original 595 individuals, 75 school leavers agreed to participate in the study. A nondropout sample was obtained by randomly choosing names from a list of graduated students for the 1989-90 school year provided by the Edmonton Catholic School District. The 1989-90 school year was chosen to match as closely as possible the average age of each sample. The dropout sample and nondropout sample were also matched for the last school attended, and male/female ratios were approximated as closely as possible. No other characteristics of the two samples were matched.

The first part of the study was designed to compare academic-related variables of the dropout sample and the nondropout sample. Table 1 identifies the number of students for whom results were available for each compared variable. The Edmonton Catholic School District provided access to student profile cards which contained information about the academic and school history of individuals of both samples. Comparisons between samples were made with three different types of data: (1) general information, (2) intelligence test scores, and (3) achievement test scores.

General information items included:

(a) year of birth

(b) age of student upon completion of Grade Nine

(c) number of school changes

(d) gender of student

Intelligence test scores were provided in terms of percentile scores and included:

(a) Primary Mental Abilities Test (Grade One)

(b) Lorge Thorndike Intelligence Test -Verbal/Nonverbal (Grade Four)

(c) Lorge Thorndike Intelligence Test -Verbal/Nonverbal (Grade Eight)

TABLE 1

NUMBER OF STUDENTS SAMPLED FOR EACH VARIABLE

Variable	Dropout Sample	Nondropout Sample
Year of Birth	75	80
Gender	75	80
Grade 9 Age	66	58
# of Transfers	63	48
PMA (1)	25	25
GMR (1)	25	24
GMR (3)	31	26
CTBS (5)	39	35
CTBS (7)	48	37
LTI (4)	36	29
LTI (8)	44	34
STP (9)	37	29
ENGLISH (10)	35	78
RELIGION (10)	37	62

Legend

PMA (1)	-Primary Mental Abilities Test (Grade 1)
GMR (1)	-Gates MacGinitie Reading Test -Comprehension (Gr. 1)
GMR (3)	-Gates MacGinitie Reading Test -Comprehension (Gr. 3)
CTBS (5)	-Canadian Test of Basic Skills (Grade 5)
CTBS (7)	-Canadian Test of Basic Skills (Grade 7)
LTI (4)	-Lorge Thorndike Intelligence Test (Grade 4)
LTI (8)	-Lorge Thorndike Intelligence Test (Grade 8)
STP (9)	-Sequential Test of Educational Progress -Reading (Gr. 9)

Achievement test scores were provided in terms of percentile scores and included:

(a) Gates MacGinitie Reading Test -Comprehension (Grade One)

(b) Gates MacGinitie Reading Test -Comprehension (Grade Three)

(c) Canadian Test of Basic Skills -Comprehension
-Mathematics (Grade Five)

(d) Canadian Test of Basic Skills -Comprehension
-Mathematics (Grade Seven)

(e) Sequential Test of Educational Progress -Reading (Grade Nine)

(f) English Final Grade (Grade Ten)

(g) Religion Final Grade (Grade Ten)

The second part of the study was designed to involve only the dropout sample. The 75 dropouts who had agreed to participate in the study were asked to respond to survey questions via telephone. Before questions were asked, each dropout was informed that: (1) the study involved students who had left school early, (2) the study was being conducted by a graduate student at the University of Alberta, (3) all responses would be kept confidential, and (4) participation in all aspects of the survey was strictly voluntary. The survey included three sections: (1) general information, (2) reasons for leaving school, and (3) preventative measures. The general information section included questions about the following:

(a) gender of student

(b) month in which student left school

(c) grade of student upon leaving

(d) age of student upon leaving

(e) grade in which student began to think about leaving school

(f) who student talked to about the decision to leave school

The section, 'Reasons for Leaving School' was presented in Likert scale form. Dropouts were asked to respond to each of 20 possible reasons students could have had for leaving school by indicating whether they strongly disagreed, disagreed, neither agreed or disagreed, agreed, or strongly agreed with each statement. The statements are listed in Appendix A.

The 'Preventative Measures' section was also presented in Likert scale form. As with the previous section, dropouts were asked to respond to various statements. Here, they were asked if the presence of certain factors or measures would have changed their decision to leave school; dropouts were asked to indicate whether they strongly disagreed, disagreed, neither agreed nor disagreed, agreed, or strongly agreed with 13 statements, which began with "I would have stayed in school had there been . . . ". The statements are listed in Appendix B.

(C) Data Analysis

The first part of the study focused upon comparisons between the dropout and nondropout samples with regard to a number of academic-related background variables. The second part of the study concentrated specifically on the dropout sample. Emphasis was placed on what dropouts believed influenced their decision to leave school and what factors or measures could have prolonged their stay in school. The research questions for this study are:

(1) What are the differences between dropouts and nondropouts with regard to variables such as age upon completion of Grade Nine, frequency of school transfers, aptitude scores in Grade One, Grade Four, and Grade Eight, reading achievement scores in Grade One, Grade Three, Grade Five, Grade Seven, and Grade Nine, and mathematics achievement scores in Grade Five and Grade Seven, teacher-assigned grades in Grade Ten?

(2) Which reasons are given most often and considered most important by dropouts in terms of contributing to their early school leaving?

(3) Which preventative measures are regarded by dropouts as more likely to have prolonged their stay in school?

(4) What relationship is evident among the 'Reasons for Leaving School' items to which the dropout sample responded?

(5) What relationship is evident among the 'Preventative Measures' items to which the dropout sample responded?

To examine possible differences between the dropout and nondropout samples, data analysis involved Hotelling's t-test comparisons of each set of variables. Data analysis of the responses of the early school leaving and preventative measures questionairres involved computation of means and standard deviations of each 'reason for leaving school' and each 'preventative measure' item. Each survey item had five possible responses and for statistical purposes each response was assigned a numerical value: strongly agree (5), agree (4), neither agree or disagree (3), disagree (2), and strongly disagree (1). A larger mean indicated greater agreement with the survey item. Level of agreement with a particular item was also measured by adding together the percentage of 'strongly agree' and 'agree' responses. Pearson product-moment correlations and factor analysis were used to help establish evidence for relationship among the items of response for each survey.

(D) Delimitations of the Study

(1) Of the 595 students listed as having left the Edmonton Catholic School District, only 75 agreed to participate in the study. This represents 13 % of the original population. It is not known how closely this subset of students represents all school district leavers of the 1988-89 school year.

(2) Obtaining complete school histories for all students of both the dropout and nondropout groups was not possible. Due to the transient nature of a high proportion of families, many students did not attend school solely within the Edmonton Catholic School System. Complete sets of data for achievement and aptitude

variables were not available. Comparisons between groups of these variables were based upon data samples that were constantly changing in size depending on the type of variable and the grade of the student.

(3) The variables that were chosen to be compared were limited to the data that the Edmonton Catholic School District included on their student record files.

(4) Only the dropout group was asked to complete the two survey questionairres, thus comparisons were not available between the dropout and nondropout group. Although analysis of dropout responses provided valuable information, comparisons outside the dropout group would have added significantly to the original set of observations.

CHAPTER 4

RESULTS

(A) Desriptive Statistics

A.1 General Information

There were two separate samples in this study: 75 dropouts and 80 nondropouts. The 75 dropouts included 46 male and 29 female students, and the 80 nondropouts included 44 male and 36 female students. The vast majority (93 %) of students were born between 1969 and 1973; there was an average difference of less than one year (0.89 of a year) between the two sample groups with respect to date of birth. Dropouts were somewhat older than nondropouts upon completion of Grade Nine (15.3 vs 15.1). The average number of school transfers of dropouts while they attended school was 1.3; nondropouts transferred an average of 0.7 times. Table 2A indicates the means of non-test variables. Table 2B provides the frequency of age upon completion of Grade Nine for dropouts and nondropouts.

A.2 Aptitude Scores

Aptitude scores included those obtained from the Primary Mental Abilities Test (PMA) given in Grade One, and the Lorge Thorndike Intelligence (LTI) Test given in both Grade Four and Grade Eight. Aptitude scores were obtained in the form of percentile ranking scores rather than grade equivalents. Table 3 provides the means of the aptitude scores. Unexpectedly, the dropout sample scored higher than the nondropout sample on the PMA test (52.0 vs 42.8). Aptitude scores from the LTI tests given in Grade Four and Grade Eight did not show as much variation. In Grade Four, the Verbal, Nonverbal, and Full Scale mean scores for the dropout group were 49.2, 48.1, and 47.1 respectively; the mean scores for the nondropout group were 47.8, 48.4, and 47.6 respectively. In Grade Eight, the Verbal, Nonverbal, and Full Scale mean scores for the dropout group were 44.9, 51.4, and 46.0 respectively; the mean scores for the nondropout group were 47.1, 49.1, and 46.9 respectively. A comparison of

TABLE 2A

MEANS OF NON-TEST VARIABLES FOR DROPOUTS AND NONDROPOUTS

	Dropouts		Nondropouts	
Variable	Mean	S. D.	Mean	S. D.
Grade 9 Age	15.3	0.6	15.1	0.6
# of transfers	1.3	1.4	0.7	0.8

N = refer to Table 1

TABLE 2B

FREQUENCY OF AGE UPON COMPLETION OF GRADE NINE FOR DROPOUTS AND NONDROPOUTS

	Age Upon Completion of Grade 9			
	14	15	16	17
Student				
Dropouts	4	40	20	2
Nondropouts	4	44	8	2

TABLE 3

MEANS OF APTITUDE VARIABLES FOR DROPOUTS AND NONDROPOUTS

	Dropouts		Nondropouts	
Variable	Mean	S. D.	Mean	S. D.
PMA (1)	52.0	26.8	42.8	24.3
LTI (V-4)	49.2	29.2	47.8	28.8
LTI (N-4)	48.1	27.7	48.4	28.0
LTI (F-4)	47.1	27.2	47.6	27.8
LTI (V-8)	44.9	27.5	47.1	28.6
LTI (N-8)	51.4	24.5	49.1	28.7
LTI (F-8)	46.0	25.3	46.9	28.6

Legend

PMA (1) -Primary Mental Abilities Test (Grade 1)
LTI (V-4) -Lorge Thorndike Intelligence Test (Verbal-Grade 4)
LTI (N-4) -Lorge Thorndike Intelligence Test (Nonverbal-Grade 4)
LTI (F-4) -Lorge Thorndike Intelligence Test (Full Scale-Grade 4)
LTI (V-8) -Lorge Thorndike Intelligence Test (Verbal-Grade 8)
LTI (N-8) -Lorge Thorndike Intelligence Test (Nonverbal-Grade 8)
LTI (F-8) -Lorge Thorndike Intelligence Test (Full Scale-Grade 8)

N = refer to Table 1

mean scores between Grade Four and Grade Eight shows little variation for both samples.

A.3 Achievement Scores

The achievement scores included the Comprehension subtest from the Gates MacGinitie Reading Test given in both Grade One and Grade Three, the Comprehension and Math Concepts subtests from the Canadian Test of Basic Skills given in both Grade Five and Grade Seven, the Reading subtest from the Sequential Test of Educational Progress given in Grade Nine, as well as teacher-assigned grades for English and Religion in Grade Ten. All scores were percentile ranking scores, except for the teacher-assigned grades. Achievement mean scores are shown in Table 4. Beginning in Grade One and continuing every second year until Grade Nine, the mean reading scores for the dropout group were as follows: 54.5, 53.4, 51.0, 44.9, and 44.6; for the same time period, the mean scores for the nondropout group were: 50.8, 49.5, 42.3, 46.0, and 50.7. The only pattern that seems to emerge is a drop-off in scores after Grade Five for the dropout group. Mathematics achievement scores are available for only Grade Five and Grade Seven. Mean scores for the dropout group were 42.3 and 38.5 for these two grades, while mean scores for the nondropout group were 47.5 and 54.4. The largest differences found between groups were with teacher-assigned grades. The mean of Grade Ten teacher-assigned grades for the dropout group was 44.5% for English and 51.2% for Religion; the mean grade for the nondropout group was 62.7% for English and 68.3 for Religion.

(B) Statistical Comparisons Between Groups

It was hypothesized that there would be differences between groups for the following variables: age upon completion of Grade Nine and the frequency of school transfer. Table 5 indicates the t-test comparisons of non-test variables between the dropout and nondropout samples. There is a statistically significant difference ($t = 2.61$, $p < .01$) for frequency of school transfer. Dropouts transferred between schools

TABLE 4

MEANS OF ACHIEVEMENT VARIABLES FOR DROPOUTS AND NONDROPOUTS

	Dropouts		Nondropouts	
Variable	Mean	S. D.	Mean	S. D.
GMR (1)	54.5	26.5	50.8	30.8
GMR (3)	53.4	26.3	49.5	25.1
CTBS (R-5)	51.0	27.9	42.3	24.4
CTBS (M-5)	42.3	22.5	45.9	27.4
CTBS (R-7)	44.9	24.9	46.0	25.8
CTBS (M-7)	38.5	22.9	52.7	29.0
STP (9)	44.6	24.7	50.7	25.5
ENGLISH (10)	44.5	13.5	62.7	12.2
RELIGION (10)	51.2	18.8	68.3	14.3

Legend

GMR (1) -Gates MacGinitie Reading Test -Comprehension (Gr. 1)
GMR (3) -Gates MacGinitie Reading Test -Comprehension (Gr. 3)
CTBS (R-5) -Canadian Test of Basic Skills -Comprehension (Grade 5)
CTBS (M-5) -Canadian Test of Basic Skills -Math Concepts (Grade 5)
CTBS (R-7) -Canadian Test of Basic Skills -Comprehension (Grade 7)
CTBS (M-7) -Canadian Test of Basic Skills -Math Concepts (Grade 7)
STP (9) -Sequential Test of Educational Progress -Reading (Gr. 9)

N = refer to Table 1

TABLE 5

t-TEST COMPARISONS OF NON-TEST VARIABLES BETWEEN DROPOUT AND NONDROPOUT GROUPS

Variable	t-value	D. F.	Probability
Grade 9 Age	1.51	122	0.13
# of transfers*	2.61	109	0.01

* Denotes Statistically Significant $p < .05$

considerably more often than nondropouts. There was no significant difference between groups with regard to age upon completion of Grade Nine.

It was hypothesized that there would be differences between groups for aptitude variables. Table 6 summarizes the t-test comparisons of aptitude variables between dropout and nondropout samples. No significant differences were found for any of the aptitude measures regardless of when the aptitude measure was administered or which abilities were being tested.

It was hypothesized that there would be differences between groups for achievement variables. t-test comparisons of achievement variables between dropout and nondropout samples are shown in Table 7. A statistically significant difference ($t = 2.53$, $p < .01$) was found for mathematics achievement in Grade Seven as measured by the Math Concepts subtest on the Canadian Test of Basic Skills. The dropout group scored considerably lower than the nondropout group. No significant difference was found on the same subtest given in Grade Five. In addition, no significant differences were found between groups for reading achievement at any age. There were statistically significant differences for teacher-assigned grades for Grade Ten English ($t = 7.05$, $p < .001$) and Grade Ten Religion ($t = 5.11$, $p < .001$). The dropout group received much lower grades for both Grade Ten subjects as compared to the nondropout group.

(C) The Dropout Survey

C.1 General Information

The Edmonton Catholic School District operates on a semester system with school terms beginning in September and February. Responses to the dropout survey indicate that the school leaving rate is much lower during these two term-beginning months, and increases substantially for the next two months in each term before decreasing again. Students were more likely to leave school during October than any other month. Table 8A summarizes the frequency of school leaving on a

TABLE 6

t-TEST COMPARISONS OF APTITUDE VARIABLES BETWEEN DROPOUT AND NONDROPOUT GROUPS

Variable	t-value	D. F.	Probability
PMA (1)	1.27	48	0.21
LTI (V-4)	0.20	63	0.84
LTI (N-4)	0.05	63	0.96
LTI (F-4)	0.07	63	0.94
LTI (V-8)	0.34	76	0.73
LTI (N-8)	0.38	76	0.71
LTI (F-8)	0.14	76	0.89

Legend

PMA (1) -Primary Mental Abilities Test (Grade 1)
LTI (V-4) -Lorge Thorndike Intelligence Test (Verbal-Grade 4)
LTI (N-4) -Lorge Thorndike Intelligence Test (Nonverbal-Grade 4)
LTI (F-4) -Lorge Thorndike Intelligence Test (Full Scale-Grade 4)
LTI (V-8) -Lorge Thorndike Intelligence Test (Verbal-Grade 8)
LTI (N-8) -Lorge Thorndike Intelligence Test (Nonverbal-Grade 8)
LTI (F-8) -Lorge Thorndike Intelligence Test (Full Scale-Grade 8)

$p < .05$

TABLE 7

t-TEST COMPARISONS OF ACHIEVEMENT VARIABLES FOR DROPOUT AND NONDROPOUT GROUPS

Variable	t-value	D. F.	Probability
GMR (1)	0.45	47	0.66
GMR (3)	0.56	55	0.58
CTBS (R-5)	1.43	72	0.16
CTBS (M-5)	0.62	72	0.54
CTBS (R-7)	0.20	83	0.84
CTBS (M-7)*	2.53	83	0.01
STP (9)	0.99	64	0.33
ENGLISH (10)*	7.05	111	0.001
RELIGION (10)*	5.11	97	0.001

Legend

GMR (1)	-Gates MacGinitie Reading Test -Comprehension (Gr. 1)
GMR (3)	-Gates MacGinitie Reading Test -Comprehension (Gr. 3)
CTBS (R-5)	-Canadian Test of Basic Skills -Comprehension (Grade 5)
CTBS (M-5)	-Canadian Test of Basic Skills -Math Concepts (Grade 5)
CTBS (R-7)	-Canadian Test of Basic Skills -Comprehension (Grade 7)
CTBS (M-7)	-Canadian Test of Basic Skills -Math Concepts (Grade 7)
STP (9)	-Sequential Test of Educational Progress -Reading (Gr. 9)

* Denotes Statistically Significant $p < .05$

TABLE 8A

MONTH IN WHICH DROPOUTS LEFT SCHOOL

Month	Number	Percentage
September	5	7
October	12	16
November	9	12
December	8	11
January	8	11
February	4	5
March	9	12
April	9	12
May	4	5
June	3	4
Missing Data	4	5

n=75

monthly basis. The majority of dropouts leave school during either Grade Ten or Grade Eleven. Most students also begin to think about leaving school during these grades, although a considerable number of students begin thinking about dropping out in the lower grades. Table 8B gives the number of students who dropout on a per grade basis, and Table 8C gives the frequency per grade of when students begin to think about dropping out. A slight majority of dropouts did not talk to anyone about their decision to leave school. If they did discuss their situation with anyone it was more likely to be a parent and preferably with the mother of the family. Only a small percentage of dropouts talked to school personnel about their decision to leave school.

C.2 Reasons for Leaving School Survey

Dropouts indicated that many different reasons influenced their decision to leave school. Table 9 includes how frequently dropouts agreed or disagreed with various possible reasons as contributing to their school leaving. The two reasons agreed to most often were related to truancy and lack of effort; 83 % of dropouts agreed with the statement, 'I skipped classes a great deal', while 77 % of dropouts concurred with the statement, 'I did not give school enough effort'. The next two most frequent reasons given were related to a desire to have more independence; 64 % of dropouts agreed that, 'I wanted to earn money for myself', described their situation, and 64 % concurred with 'I wanted to be more independent'. School-related difficulties (55 % of dropouts agreed with 'I did not like being at school', 42 % agreed with 'School subjects were boring', and 40 % agreed with 'I had poor grades in school') or personal and family-related problems (52 % of dropouts agreed with 'I had my own personal problems', and 39 % agreed with 'I had family-related problems') were experienced by a significant amount of dropouts.

Table 10 provides a comparison of response frequency between male and female dropouts. Generally, male and female dropouts responded similarly to the

TABLE 8B

GRADE IN WHICH DROPOUTS LEFT SCHOOL

Grade	Number	Percentage
Grade 8	3	4
Grade 9	6	8
Grade 10	28	37
Grade 11	36	48
Grade 12	2	3

n=75

TABLE 8C

GRADE IN WHICH DROPOUTS BEGAN TO THINK ABOUT LEAVING SCHOOL

Grade	Number	Percentage
Grade 6 and lower	6	8
Grade 7	3	4
Grade 8	3	4
Grade 9	8	11
Grade 10	27	36
Grade 11	22	29
Grade 12	1	1
Missing data	5	7

n=75

TABLE 9

FREQUENCY OF RESPONSE OF DROPOUTS TO POSSIBLE REASONS FOR LEAVING SCHOOL

Possible Reason	SA	A	N	D	SD
BORING SCHOOL SUBJECTS	10	22	09	25	09
PROBLEMS WITH TEACHERS	08	09	08	39	11
DID NOT LIKE SCHOOL	17	24	11	21	02
FRIENDS NOT IN SCHOOL	02	16	05	33	19
FAMILY RELATED PROBLEMS	08	21	10	24	12
PERSONAL PROBLEMS	10	29	06	27	03
MEANINGLESS CURRICULUM	03	11	15	38	08
TROUBLE WITH SCHOOL RULES	06	15	12	34	08
TOO MANY SKIPPED CLASSES	27	35	06	04	03
MORE INDEPENDENCE	09	39	13	13	01
NO SUPPORT FROM FAMILY	02	03	07	30	33
ALCOHOL/DRUG PROBLEMS	04	12	04	27	28
DIFFICULT SCHOOL SUBJECTS	02	08	11	40	14
PROBLEMS WITH STUDENTS	04	08	06	42	15
POOR GRADES	09	21	17	24	04
EARN MONEY FOR MYSELF	15	33	12	12	03
SUPPORTED MY FAMILY	03	03	03	46	20
NOT ENOUGH SCHOOL EFFORT	18	40	05	09	03
MARRIAGE	01	01	02	36	03
PREGNANCY	00	03	01	11	15

N = 75

TABLE 10

PERCENTAGE OF MALE AND FEMALE DROPOUTS WHO AGREED WITH EACH REASON FOR LEAVING SCHOOL ITEM

Possible Reason	Male	Female
BORING SCHOOL SUBJECTS	43	43
PROBLEMS WITH TEACHERS	22	23
DID NOT LIKE SCHOOL	53	57
FRIENDS NOT IN SCHOOL	20	30
FAMILY RELATED PROBLEMS	33	47
PERSONAL PROBLEMS	44	63
MEANINGLESS CURRICULUM	18	20
TROUBLE WITH SCHOOL RULES	31	23
TOO MANY SKIPPED CLASSES	84	80
MORE INDEPENDENCE	60	70
NO SUPPORT FROM FAMILY	04	10
ALCOHOL/DRUG PROBLEMS	18	27
DIFFICULT SCHOOL SUBJECTS	13	13
PROBLEMS WITH STUDENTS	16	17
POOR GRADES	44	33
EARN MONEY FOR MYSELF	67	60
SUPPORTED MY FAMILY	04	13
NOT ENOUGH SCHOOL EFFORT	76	80
MARRIAGE	00	07
PREGNANCY	00	10

N = 75

survey. However, female dropouts tended to give more weight to problems that were personal- and family-oriented. They also expressed a stronger desire to be independent, more likely agreed that most of their friends were out of school, and were more likely to have problems with alcohol or drugs. On the other hand, males were more likely to agree that they had poor grades in school and they had problems with school rules and regulations. Table 11 gives the rank order of the frequency with which all of the respondents, the male respondents, and female respondents agreed with each possible reason for leaving school.

C.3 Preventative Measures Survey

Dropouts indicated that certain preventative measures could have reduced the likelihood of dropping out of school or at least could have helped prolong their stay in school. Table 12 provides a list of each preventative measure item and the percentage of respondents who felt that the particular measure could have influenced their school leaving behavior. The preventative measure receiving most agreement was 'more individual help at school'; 64 % of respondents indicated that receiving help for school work purposes probably would have kept them in school longer. 59 % of dropouts said that 'more interesting subjects' would have influenced their decision-making about leaving school, while 57 % of dropouts said that 'less emphasis on passing and failing' would have made a difference with regard to dropping out. 'More practical subjects' had a 52 % agreement rate and 'a tougher attendance policy' followed with 49 %.

Male and female dropouts responded similarly to the preventative measure items. Table 14 gives the percentage of agreement with each item for males and females; Table 13 gives a rank ordering of the agreement rate for males and females. 'More individual help at school' had the highest rate of agreement within each group (males: 63 %; females: 64 %). Males viewed 'more interesting subjects' as highly as

TABLE 11

RANKING OF CONTRIBUTING FACTORS FOR LEAVING SCHOOL

Possible Reason	Overall	Male	Female
TOO MANY SKIPPED CLASSES	1	1	1
NOT ENOUGH SCHOOL EFFORT	2	2	2
EARN MONEY FOR MYSELF	3	3	4
MORE INDEPENDENCE	4	4	3
DID NOT LIKE SCHOOL	5	5	6
PERSONAL PROBLEMS	6	7	5
POOR GRADES	7	6	9
BORING SCHOOL SUBJECTS	8	8	8
FAMILY RELATED PROBLEMS	9	10	7
TROUBLE WITH SCHOOL RULES	10	9	11
PROBLEMS WITH TEACHERS	11	11	14
MEANINGLESS CURRICULUM	12	12	10
FRIENDS NOT IN SCHOOL	13	14	12
DIFFICULT SCHOOL SUBJECTS	14	13	16
PROBLEMS WITH STUDENTS	15	15	15
ALCOHOL/DRUG PROBLEMS	16	16	13
SUPPORTED MY FAMILY	17	17	16
NO SUPPORT FROM FAMILY	18	18	18
PREGNANCY	19	NA	19
MARRIAGE	20	19	20

N = 75

TABLE 12

FREQUENCY OF RESPONSE OF DROPOUTS TO PREVENTATIVE MEASURE ITEMS

Preventative Measure	SA	A	N	D	SD
INTERESTING SUBJECTS	06	38	05	21	04
TEACHER ENCOURAGEMENT	07	26	08	28	05
FRIENDLIER SCHOOL ATMOSPHERE	12	19	08	31	04
ENCOURAGEMENT FROM FRIENDS	08	21	13	29	03
COUNSELLING SERVICE	04	19	11	32	08
PRACTICAL SUBJECTS	08	30	14	18	04
CONSISTENT DISCIPLINE	02	15	12	32	13
TOUGHER ATTENDANCE POLICY	07	29	10	19	09
ENCOURAGEMENT FROM FAMILY	03	20	12	31	08
INDIVIDUAL HELP AT SCHOOL	14	33	10	13	04
LESS EMPHASIS ON EVALUATION	09	33	10	18	04
FINANCIAL ASSISTANCE	04	14	07	40	09
CONCERN ABOUT PROGRESS	06	27	13	25	03

N = 75

TABLE 13

RANKING OF PREVENTATIVE MEASURE ITEMS

Possible Reason	Overall	Male	Female
INDIVIDUAL HELP AT SCHOOL	1	1	3
LESS EMPHASIS ON EVALUATION	2	3	1
INTERESTING SUBJECTS	3	2	4
PRACTICAL SUBJECTS	4	4	2
CONCERN ABOUT PROGRESS	5	6	5
TOUGHER ATTENDANCE POLICY	6	7	5
FRIENDLIER SCHOOL ATMOSPHERE	7	7	7
TEACHER ENCOURAGEMENT	8	5	9
ENCOURAGEMENT FROM FRIENDS	9	9	8
COUNSELLING SERVICE	10	10	11
ENCOURAGEMENT FROM FAMILY	11	10	10
FINANCIAL ASSISTANCE	12	13	12
CONSISTENT DISCIPLINE	13	12	13

N = 75

TABLE 14

PERCENTAGE OF MALE AND FEMALE DROPOUTS WHO AGREED WITH EACH PREVENTATIVE MEASURE ITEM

Preventative Measure	Male	Female
INTERESTING SUBJECTS	63	54
TEACHER ENCOURAGEMENT	46	43
FRIENDLIER SCHOOL ATMOSPHERE	37	50
ENCOURAGEMENT FROM FRIENDS	37	43
COUNSELLING SERVICE	33	29
PRACTICAL SUBJECTS	48	57
CONSISTENT DISCIPLINE	24	21
TOUGHER ATTENDANCE POLICY	48	50
ENCOURAGEMENT FROM FAMILY	30	32
INDIVIDUAL HELP AT SCHOOL	63	64
LESS EMPHASIS ON EVALUATION	52	64
FINANCIAL ASSISTANCE	22	29
CONCERN ABOUT PROGRESS	48	39

N = 75

'more individual help at school' with both receiving a 63 % agreement rate, while females viewed 'less emphasis on passing and failing' as highly as 'more individual help at school' with both receiving a 64 % agreement rate. For males, 'less emphasis on passing and failing' had an agreement rate of 52 %; for females, 'more interesting subjects' had an agreement rate of 54 %. Other differences between males and females were found with the items, 'more practical subjects' (males: 48 %; females: 57 %), 'a friendlier atmosphere at school' (males: 37 %; females: 50 %), and 'concern shown about my academic progress' (males: 48 %; females: 39 %).

C.4 Relationship among School Leaving Items

Pearson product-moment correlations were established for each school leaving item with the rest of the survey items as a group. Results are reported in Table 15. Correlations ranged from insignificant (.19) to meaningful (.66). Items related to not having friends in school (.30), marriage (.26), and having to support family (.19) had the weakest relationship with the survey items as a whole. Having trouble with rules and regulations (.66) showed the strongest relationship.

A further examination of correlations among survey items indicated many strong positive relationships. Table 16 indicates the strength of relationship between individual items. Personal problems and family problems correlated most strongly (.63). The relationship between boring school subjects and meaningless school subjects was identified as .60. Boring school subjects also correlated strongly with poor grades in school (.57). The correlation between not liking being at school and having problems with school rules and regulations was .56.

Relationship among items was also addressed by the use of a factor analysis followed by a varimax rotation. Factor loadings are illustrated in Table 17. Factor 1 indicates a commonality among items that relates to 'poor performance'. Five items (not like being in school, poor grades, problems with school rules and regulations, difficult school subjects, skipping classes) were included in this cluster. Another

TABLE 15

CORRELATIONS BETWEEN INDIVIDUAL REASONS FOR LEAVING SCHOOL ITEMS WITH ALL OF THE SURVEY ITEMS AS A GROUP

Possible Reason	Total Survey
TROUBLE WITH SCHOOL RULES	.66
PROBLEMS WITH STUDENTS	.59
POOR GRADES	.59
BORING SCHOOL SUBJECTS	.59
ALCOHOL/DRUG PROBLEMS	.56
DID NOT LIKE SCHOOL	.55
MEANINGLESS CURRICULUM	.55
TOO MANY SKIPPED CLASSES	.51
PROBLEMS WITH TEACHERS	.49
DIFFICULT SCHOOL SUBJECTS	.49
NOT ENOUGH SCHOOL EFFORT	.47
FAMILY RELATED PROBLEMS	.38
MORE INDEPENDENCE	.37
PERSONAL PROBLEMS	.34
NO SUPPORT FROM FAMILY	.34
EARN MONEY FOR MYSELF	.34
FRIENDS NOT IN SCHOOL	.30
MARRIAGE	.26
SUPPORTED MY FAMILY	.19

N = 75

TABLE 16

CORRELATIONS AMONG REASONS FOR LEAVING SCHOOL ITEMS

School Leaving Item	BOR	TCH	NLS	FRI	FAM	PER	CUR
PROBLEMS WITH TEACHERS	.362						
DID NOT LIKE SCHOOL	.353	.242					
FRIENDS NOT IN SCHOOL	.021	.083	.102				
FAMILY RELATED PROBLEMS	.023	.059	.080	.168			
PERSONAL PROBLEMS	.026	.054	.010	.117	.628		
MEANINGLESS CURRICULUM	.600	.327	.362	.091	.088	.069	
TROUBLE WITH SCHOOL RULES	.371	.371	.559	.126	.115	.068	.370
TOO MANY SKIPPED CLASSES	.239	.144	.348	.136	.130	.193	.279
MORE INDEPENDENCE	.017	.142	.076	.153	.198	.308	.038
NO SUPPORT FROM FAMILY	.251	.020	.061	.056	.197	.000	.241
ALCOHOL/DRUG PROBLEMS	.364	.233	.324	.181	.010	.050	.389
DIFFICULT SCHOOL SUBJECTS	.240	.221	.320	.083	.142	.058	.350
PROBLEMS WITH STUDENTS	.160	.297	.239	.175	.400	.277	.194
POOR GRADES	.570	.299	.434	.018	.055	.085	.324
EARN MONEY FOR MYSELF	.072	.078	.114	.049	.120	.016	.076
SUPPORTED MY FAMILY	.023	.172	.038	.047	.260	.067	.073
NOT ENOUGH SCHOOL EFFORT	.176	.385	.203	.105	.088	.096	.305
MARRIAGE	.253	.068	.067	.193	.041	.063	.003

Legend
BOR - Boring School Subjects
TCH - Problems with Teachers
NLS - Did Not Like School
FRI - Friends Not in School
FAM - Family Related Problems
PER - Personal Problems
CUR - Meaningless Curriculum
___ - denotes negative correlation

N = 75

Table 16 continued

TABLE 16 continued

CORRELATIONS AMONG REASONS FOR LEAVING SCHOOL ITEMS

School Leaving Item	RUL	SKP	IND	NSF	ALC	DIF
TOO MANY SKIPPED CLASSES	.316					
MORE INDEPENDENCE	.145	.094				
NO SUPPORT FROM FAMILY	.083	.024	.032			
ALCOHOL/DRUG PROBLEMS	.451	.294	.275	.197		
DIFFICULT SCHOOL SUBJECTS	.396	.137	.149	.212	.145	
PROBLEMS WITH STUDENTS	.284	.188	.097	.326	.183	.237
POOR GRADES	.372	.288	.087	.140	.209	.453
EARN MONEY FOR MYSELF	.147	.068	.405	.018	.097	.159
SUPPORTED MY FAMILY	.018	.031	.152	.211	.016	.053
NOT ENOUGH SCHOOL EFFORT	.176	.385	.203	.105	.088	.096
MARRIAGE	.253	.068	.067	.193	.041	.063

Legend
RUL - Trouble with School Rules
SKP - Too Many Skipped Classes
IND - More Independence
NSF - No Support from Family
ALC - Alcohol/Drug Problems
DIF - Difficult School Subjects

___ - denotes negative correlation

N = 75

Table 16 continued

TABLE 16 continued

CORRELATIONS AMONG REASONS FOR LEAVING SCHOOL ITEMS

School Leaving Item	STU	GRA	MON	SUP	EFF
POOR GRADES	.191				
EARN MONEY FOR MYSELF	.018	.170			
SUPPORTED MY FAMILY	.326	.075	.284		
NOT ENOUGH SCHOOL EFFORT	.209	.182	.132	.172	
MARRIAGE	.348	.285	.047	.369	.196

Legend
STU - Problems with Students
GRA - Poor Grades
MON - Earn Money for Myself
SUP - Supported My Family
EFF - Not Enough School Effort

___ - denotes negative correlation

N = 75

TABLE 17

FACTOR ANALYSIS OF EARLY SCHOOL LEAVING ITEMS

Factor	Name	Items	Factor Loading	Total Variance
1	Poor Performance	Did Not Like School	.768	23.0
		Poor Grades	.721	
		Trouble With School Rules	.685	
		Difficult School Subjects	.577	
		Too Many Skipped Classes	.560	
2	Disillusionment	No Support From Family	.682	11.6
		Meaningless Curriculum	.642	
		Boring School Subjects	.630	
		Alcohol/Drug Problems	.573	
3	Independence	Earn Money For Myself	.850	5.8
		More Independence	.767	
4	Problem Oriented	Family Related Problems	.862	11.1
		Personal Problems	.833	
		Problems With Students	.572	
5	Family	Supported My Family	.810	6.8
		Marriage	.655	

cluster (family not concerned, meaningless subjects, boring subjects, and trouble with alcohol and/or drugs) determines Factor 2, 'disillusionment'. This factor describes reasons based upon the perception that schooling is meaningless rather than upon poor academic performance. A cluster that appears to be isolated from school-related factors is identified in Table 17 as Factor 3, 'independence'. 'Earning money' and 'wanting to be more independent' form this factor. Factor 4 in Table 17 can be classified as 'problem-oriented'. Included in this cluster are 'family-related problems', 'personal problems', and 'did not get along with other students'. Like Factor 3, this factor emphasizes concerns more closely related to the student rather than the school. 'Supporting family' and 'getting married' comprise Factor 5, 'family'. This factor represents reasons that seem to be furthest removed from the realm of the school.

C.5 Relationship among Preventative Measures Items

Table 18 identifies the Pearson product-moment correlation of each preventative measure item with the rest of the survey items as a group. Correlations range from very weak (.24) to strong (.68). Items which correlated most strongly with other items were 'more concern shown about academic progress' (.68) and 'encouragement from teachers' (.61). The weakest correlation was between 'financial help from family' as a preventative measure for school dropout and all other survey items at .24.

Correlations were established between individual preventative measure items, as well. Table 19 indicates these correlations. The strongest relationship was found to exist between 'some help from a counselling service' and 'more individual help at school' (.53). Other significant relationships included 'more practical subjects' and 'concern shown about my academic progress' (.45), 'more practical subjects' and 'more individual help at school' (.44), and 'more encouragement from teachers' and 'more encouragement from friends' (.44).

TABLE 18

CORRELATIONS BETWEEN PREVENTATIVE MEASURE ITEMS WITH ALL OF THE SURVEY ITEMS AS A GROUP

Preventative Measure	Total Survey
CONCERN ABOUT PROGRESS	.68
TEACHER ENCOURAGEMENT	.61
PRACTICAL SUBJECTS	.59
FRIENDLIER SCHOOL ATMOSPHERE	.58
INDIVIDUAL HELP AT SCHOOL	.57
COUNSELLING SERVICE	.56
ENCOURAGEMENT FROM FRIENDS	.55
LESS EMPHASIS ON EVALUATION	.55
ENCOURAGEMENT FROM FAMILY	.54
CONSISTENT DISCIPLINE	.48
INTERESTING SUBJECTS	.46
TOUGHER ATTENDANCE POLICY	.45
FINANCIAL ASSISTANCE	.24

N = 75

TABLE 19

CORRELATIONS AMONG PREVENTATIVE MEASURE ITEMS

Preventative Measure Item	INT	TCH	ATM	FRI	COU	PRA
TEACHER ENCOURAGEMENT	.384					
FRIENDLIER SCHOOL ATMOSPHERE	.407	.389				
ENCOURAGEMENT FROM FRIENDS	.240	.439	.328			
COUNSELLING SERVICE	.000	.098	.176	.252		
PRACTICAL SUBJECTS	.167	.234	.167	.113	.356	
CONSISTENT DISCIPLINE	.257	.203	.354	.167	.200	.243
TOUGHER ATTENDANCE POLICY	.180	.289	.086	.116	.115	.362
ENCOURAGEMENT FROM FAMILY	.131	.142	.210	.258	.275	.208
INDIVIDUAL HELP AT SCHOOL	.112	.251	.266	.125	.532	.441
LESS EMPHASIS ON EVALUATION	.106	.309	.199	.290	.332	.251
FINANCIAL ASSISTANCE	.024	.042	.099	.087	.163	.042
CONCERN ABOUT PROGRESS	.130	.337	.256	.340	.381	.448

Legend
INT - Interesting Subjects
TCH - Teacher Encouragement
ATM - Friendlier School Atmosphere
FRI - Encouragement from Friends
COU - Counselling Service
PRA - Practical Subjects

___ - denotes negative correlation

N = 75

Table 19 continued

TABLE 19 continued

CORRELATIONS AMONG PREVENTATIVE MEASURE ITEMS

Preventative Measure Item	DIS	ATT	FAM	IND	EVA	FIN
TOUGHER ATTENDANCE POLICY	.318					
ENCOURAGEMENT FROM FAMILY	.239	.228				
INDIVIDUAL HELP AT SCHOOL	.023	.287	.187			
LESS EMPHASIS ON EVALUATION	.135	.078	.230	.340		
FINANCIAL ASSISTANCE	.171	.202	.223	.059	.122	
CONCERN ABOUT PROGRESS	.360	.176	.400	.291	.367	.204

Legend
DIS - Consistent Discipline at School
ATT - Tougher Attendance Policy
FAM - Encouragement from Family
IND - Individual Help at School
EVA - Less Emphasis on Evaluation
FIN - Financial Assistance
PRO - Concern about Progress

___ - denotes negative correlation

TABLE 20

FACTOR ANALYSIS OF PREVENTATIVE MEASURE ITEMS

Factor	Name	Items	Factor Loading	Total Variance
1	Academic Assistance	Counselling Service	.779	29.1
		Individual Help At School	.723	
		Practical Subjects	.647	
		Concern About Progress	.641	
		Less Emphasis On Evaluation	.553	
		Encouragement From Family	.477	
2	Positive Environment	Friendlier School Atmosphere	.707	12.0
		Interesting Subjects	.704	
		Teacher Encouragement	.697	
		Encouragement From Friends	.634	
3	Rule Enforcement	Tougher Attendance Policy	.720	10.7
		Consistent Discipline	.496	

Relationship between individual items was also established by using factor analysis followed by varimax rotation. Factor loadings are indicated in Table 20. Factor 1 is characterized by items related to 'academic help' (counselling, more individual help, more practical subjects, concern shown about progress, less emphasis on passing or failing). These items represent concerns about student performance. A cluster of items including 'a friendlier atmosphere at school', 'more interesting subjects', 'more teacher encouragement', and 'more encouragement from friends' comprises Factor 2, 'positive environment'. This cluster differs from the previous one in that it stresses general, positive and encouraging measures rather than specific, helpful measures. Factor 3, 'rule enforcement' is determined by 'tougher attendance policy' and 'consistent discipline at school'. Factor 3 emphasizes school- and discipline-based measures whereas the two previous factors stress student- and curriculum-based measures.

CHAPTER 5

DISCUSSION

The purpose of this study was threefold: (1) to compare academic-related background variables of dropouts and nondropouts, (2) to question early school leavers as to why they dropped out of school, and (3) to question early school leavers as to what might have kept them in school longer. To achieve the objectives of this study, a combination of two research approaches was used. First, academic school records of dropouts and nondropouts were made available by the Edmonton Catholic School District to compare aptitude and achievement variables, and other data pertinent to school leaving behavior. Second, the dropout sample was asked to respond to survey questionairres which included 'school leaving' and 'preventative measure' items. Research was directed by five research questions.

(A) Research Question 1

What are the differences between dropouts and nondropouts with regard to variables such as age upon completion of Grade Nine, frequency of school transfers, aptitude scores in Grade One, Grade Four, and Grade Eight, reading achievement scores in Grade One, Grade Three, Grade Five, Grade Seven, and Grade Nine, and mathematics achievement scores in Grade Five and Grade Seven, and teacher-assigned grades in Grade Ten?

Comparison of school mobility data between dropout and nondropout groups revealed a statistically significant difference. Dropouts transferred between schools at almost twice the rate of nondropouts. This result supports the findings of Wickstrom (1967) who found that inter-school mobility was more common among dropouts. Students leave one school to attend another for a variety of reasons. However, the reasons for increased mobility are probably not as important as the effects of mobility. Changing schools, at the very least, involves the loss of academic and social stability which is not likely to affect school achievement in a positive

manner. As yet, research has not shown if other characteristics associated with highly mobile families impact upon academic performance.

Figure 1 summarizes all of the variables of comparison and whether a significant difference was found between dropout and nondropout groups for each variable.

Figure 1 Differences Between Dropouts and Nondropouts

	Significant Difference
Frequency of School Transfers	YES
Age Upon Completion of Grade Nine	NO
Aptitude Scores	NO
Reading Achievement Scores	NO
Mathematics Achievement Scores	YES (Grade 7)
Teacher-Assigned Grades (Grade 10)	YES

Many studies have demonstrated a strong relationship between retention and drop out. School history data provided by the Edmonton Catholic School District did not specify when and if students had been held back in school. An indirect measure of retention, age upon completion of Grade Nine, was used to compare retention rates between dropouts and nondropouts. Although dropouts were found to be somewhat older than nondropouts upon completion of Grade Nine, the difference was not statistically significant. However, dropouts, compared to those who stayed in school, were still twice as likely to be older than their peers in Grade Nine. Previous research has shown that overage students in Grade Seven were more likely to drop out of school (Cairns et al, 1989). The School Leavers Survey conducted by Statistics Canada (1991) indicated that male school leavers were four times as likely and female school leavers were twice as likely to have failed a grade in elementary school compared to male and female nondropouts. Evidence strongly suggests that students who are retained in earlier grades have a reduced likelihood of graduating from

high school.

Comparisons of aptitude measures did not reveal any differences between early school leavers and stay-ins. Scores obtained in Grade Four and Grade Eight were very similar for each group. There were also no differences with Verbal and Nonverbal aptitude scores between groups. Previous studies have produced mixed results, although most researchers have concluded that ability does not play a major role in dropout behavior.

Several measures were chosen to compare the level of achievement of the dropout and nondropout groups. Reading measures were available beginning in Grade One and every second year until Grade Nine. Related research has demonstrated a strong relationship between low reading achievement and increased incidence of drop out; Beck and Muia (1980) reported that dropouts, on average, read at a level two years behind their classmates. In this study, no significant differences were found between groups for reading achievement at any age, although the dropout group did have lower scores in Grade Seven and Grade Nine as compared to the Grade One measure, while scores in Grade One and Grade Nine were virtually identical for nondropouts. The results indicate that reading may become a problem by at least Grade Seven and remains a problem until the student leaves school. Mathematics achievement in Grade Seven was found to be significantly different with dropouts scoring lower than their counterparts. A difference is noticeable by Grade Five which then increases by Grade Seven. Unfortunately, scores were only available for Grade Five and Grade Seven and earlier measures were not available to gain a better appreciation of the developmental progress of dropout and nondropout groups.

If reading and mathematics achievement scores are considered together, it appears that levels of achievement begin to differ significantly by Grade Seven. At this age, most students are also increasingly more self-conscious about personal and

social concerns and less interested about academic concerns. By Grade Ten dramatic differences exist with achievement scores between dropouts and nondropouts as measured by teacher-assigned grades for English and Religion. It is at this time that most students, who eventually drop out, begin thinking about leaving school, although many students have given thought to dropping out before they reach Grade Ten. Almost 70 % of students have seriously considered the possibility of leaving school by the tenth grade. These students usually have not achieved at the same standard as their peers by at least Grade Seven and half of the students who eventually drop out have done so during Grade Ten or an earlier grade. Many students persevere in school long after the time they start thinking about leaving school. Most students do not drop out until Grade Eleven. Schooling seems to have considerable holding power despite the lack of success these students experience.

(B) Research Question 2

Which reasons are given most often and considered most important by dropouts in terms of contributing to early school leaving?

Previous research has shown that school-related reasons, followed by work-related and personal reasons, are most frequently given by dropouts as influencing their school leaving (Cipywnyk, Pawlovich, and Randhawa, 1983; Rumberger, 1983). The results of this study also indicate that school-related reasons for leaving school are considered most important by dropouts. Four in five dropouts agreed that school-related reasons were responsible, in part, for their school leaving; three in five dropouts said that work-related reasons played a factor in school leaving. Although significant in number, family or personal reasons were not rated as highly as school- or work-related reasons.

Figure 2 summarizes the school-related, work-related, and personal/family related reasons that received the highest rates of agreement.

Figure 2 Reasons for Leaving School Items

	Percentage
School-Related	
Too Many Skipped Classes	82
Not Enough School Effort	78
Work-Related	
Earn Money For Myself	64
More Independence	64
Personal/Family	
Personal Problems	53
Family-Related Problems	40

School-related reasons involving truancy and lack of effort had the highest agreement rate among early school leavers. This suggests that dropouts view their school behavior as being most responsible for their school leaving. Unfortunately, dropouts were not asked about the nature of their truancy and lack of effort. These behaviors are symptoms of other underlying problems; they do not explain why early school leaving occurs. Curriculum concerns such as having boring classes or meaningless classes or difficult classes were not rated as highly. Having problems with school rules and regulations or difficulty with teachers had a much lower agreement rate. Generally, dropouts do not seem to place blame on the school and readily take personal responsibility for their decision to leave school.

Many dropouts agreed that work-related reasons were considered when decisions were made about dropping out. Ekstrom et al (1986) found that dropouts who leave school for work-related reasons usually do so because of personal desire rather than financial need. The results of this study supports this view. A high

proportion of dropouts wanted to earn money for themselves or they wanted to be more independent; rarely does a student leave school because he or she has to support family. Like school-related factors, work-related factors suggest that dropping out is motivated by individual-based concerns.

Half of all dropouts agreed that personal problems contributed to dropping out, while two in five dropouts admitted that family problems had some effect on school leaving behavior. Research has shown that students who use alcohol or drugs are more likely to drop out (Mensch and Kandel, 1988). In this study, only one in five dropouts agreed that they had problems with alcohol or drugs; the results suggest that substance abuse is not a primary factor in dropping out. Previous studies have reported that 5 % to 23 % of females list pregnancy as the primary reason for leaving school (Ekstrom et al, 1986; Pittman, 1986; Rumberger, 1983). One in ten female respondents agreed that pregnancy was responsible for their dropping out; pregnancy also does not appear to be a significant factor in early school leaving.

A breakdown of male and female responses of contributing factors for leaving school revealed more similarities than differences between the two groups; truancy and lack of effort head the list of reasons for both males and females. Results of this study support findings by Pittman (1986) who found that female dropouts emphasize personal- and family-related problems more so than do male dropouts. Female dropouts also expressed a stronger desire to be more independent and they indicated more frequently than did males that most of their friends were not in school. Males, more so than females, were influenced by poor grades and problems with school rules and regulations. Although school-related factors are highly influential for both male and female dropouts, matters that are predominantly school-related impacted upon the male dropout to a larger degree than the female dropout. The School Leavers Survey (Statistics Canada, 1991) found that male dropouts were more likely to prefer work to school, find work for financial reasons, and have more

teacher problems than female dropouts; female dropouts were more likely to have problems at home. Generally, the findings of the 'Reasons for Leaving School' questionairre substantiate what has been found in other similar surveys.

Differences in agreement rate between male and female dropouts are listed in Figure 3.

Figure 3 Reasons for Leaving School Differences

Male Dropouts Emphasize . . .	***Female Dropouts Emphasize . . .***
Poor Grades	More Independence
Trouble With School Rules	Personal Problems
	Family-Related Problems
	Friends Not In School

(C) Research Question 3

Which preventative measures are regarded by dropouts as more likely to have prolonged their stay in school?

Early school leavers indicated that preventative measures related to (1) academic assistance, (2) school achievement evaluation, and (3) curriculum modification are most relevant for at-risk students. Dropouts wanted to have more personal attention directed toward their academic difficulties. They also wanted less emphasis placed on passing and failing. These desires reflect the importance early school leavers placed on academic performance and their concerns about how well or how poorly they were achieving scholastic goals. Modifications in curriculum were prioritized by dropouts, as well; they wanted courses to be both more interesting and more practical. In a study by Pittman (1986), dropouts were asked to list areas within school that could be improved to better meet student needs. The most frequently suggested area involved the availability of more appropriate course options suitable to their level of ability.

Figure 4 summarizes the preventative measure items that received the highest rates of agreement.

Figure 4 Preventative Measure Items

	Percentage
Individual Help At School	63
Less Emphasis On Evaluation	58
Interesting Subjects	58
Practical Subjects	52
Tougher Attendance Policy	49

Dropouts indicated that they wanted more attention as students. Specifically, they wanted help with their courses and they wanted concern shown about how they were progressing academically. Half of all dropouts felt that a tougher attendance policy would benefit troubled students. Their message seems to be that as students they need guidance and direction. Dropouts also valued encouragement from teachers more than encouragement from either friends or family. This supports research suggesting that teacher relationships are more critical than student relationships as a factor in dropping out (Pittman, 1986). Potential dropouts want personal attention from those individuals who will most directly affect their academic progress. Increased discipline within the school, a friendlier atmosphere at school, family financial help or personal counselling were not viewed as crucial by most dropouts. These interventions or changes may possibly be helpful to some students, but it seems that for most potential dropouts these measures are secondary to those measures more closely associated with academic performance.

A separate analysis of male and female responses to preventative measure items shows that the responses are characterized more by similarities than differences. Both male and female dropouts valued individual help most highly. The differences that did exist between male and female responses are difficult to

interpret. Males dropouts, more so than female dropouts, indicated that more interesting subjects and more concern about academic progress would be effective preventative measures. On the other hand, female dropouts, more frequently than male dropouts, said that less emphasis on passing and failing, more practical subjects, and a friendlier atmosphere would be effective interventions. Male dropouts appeared to be more concerned about poor grades than female dropouts and, perhaps, this explains their increased concern about academic progress. Male dropouts may also believe that their academic performance would improve if more interesting courses were available. Not surprisingly, female dropouts valued a friendlier atmosphere more so than male dropouts. This fits with the results of the School Leaving Survey which indicated that female dropouts were more influenced by affective factors than were male dropouts (Statistics Canada, 1991).

Differences between male and female dropouts with regard to which preventative measures were favoured are reported in Figure 5.

Figure 5 Preventative Measure Differences

Male Dropouts Emphasize . . .	***Female Dropouts Emphasize . . .***
More Interesting Subjects	Less Emphasis On Evaluation
More Concern About Progress	More Practical Subjects
	Friendlier School Atmosphere

(D) Research Question 4

What relationship is evident among the 'Reasons for Leaving School' items to which the dropout sample responded?

Factor analysis was used to help identify different patterns of early school leaving. Through the use of factor analysis, five different clusters of responses were established among the school-leaving items. The clusters or factors relate to either (1) poor performance, (2) disillusionment, (3) independence, (4) personal problems, and (5) family concerns. The four main clusters are identified in Figure 6.

Figure 6 Early School Leaving Patterns

Patterns	*Individual Items*
Poor Performance	Too Many Skipped Classes
	Did Not Like School
	Poor Grades
	Trouble With School Rules
Disillusionment	Boring School Subjects
	Meaningless Curriculum
Independence	Earn Money For Myself
	More Independence
Problem-Oriented	Personal Problems
	Family-Related Problems

The primary reason for leaving school revolves around poor performance and a dislike of school. Poor performance, as indicated by low and failing grades, contributes to negative feelings about school, establishing a cycle that is difficult to escape. Truancy and discipline problems are observable symptoms of this cyclical pattern of poor performance and negative attitude. Some students who fall into this category of dropping out view school courses as too difficult. This perception is a predictable outcome of too many missed classes and a general dislike of school. Students who reveal these characteristics are more likely to have a defiant, as well as negative, attitude towards school; these students will likely experience difficulty following school rules and regulations. This pattern of dropping out describes the typical early school leaver. All of the main clusters are summarized in Figure 6 with prominent individual items listed in order of importance.

A second pattern of early school leaving can also be described as primarily school-related. This pattern emphasizes the development of an attitude of disillusionment with, rather than a dislike of, school. Items in this cluster include a view by dropouts that school courses are both meaningless and boring, and a belief that family members are not concerned about their academic progress. Potential alcohol or drug use was more likely to be associated with this cluster, as well. This pattern of dropping out does not stress poor performance or defiance, but emphasizes a more passive withdrawal from school. Typically, these students find schooling to be an unworthwhile pursuit and perceive that others, especially immediate family, are also not concerned about their schooling.

Certain patterns of dropping out appear to be motivated primarily by factors outside the realm of school. One such pattern is characterized by items that cluster about a factor described as 'independence'. Here, dropping out seems to be a symptom of the student's pursuit of independence. Leaving school provides freedom for the student by severing the hold of the school on the time, effort, and energy of the dropout student. Finding employment becomes the main objective for these individuals.

Another pattern of school leaving revolves around relationship difficulties. In this scenario, dropping out seems to be motivated by personal problems, family problems, or difficulties getting along with other students. This tends to describe students who do not fit the mainstream of the school population and who are stereotyped as individuals who have trouble establishing and maintaining social relationships. Although poor performance may still be an influencing factor, these early school leavers may be primarily motivated to dropout because of overwhelming personal and family problems.

A fifth pattern of drop out, which occurs infrequently, is influenced by family-related concerns such as having to support family or wishing to get married.

Very few of the dropouts in this study experienced this pattern of early school leaving.

(E) Research Question 5

What relationship is evident among the 'Preventative Measure' items to which the dropout sample responded?

Figure 7 summarizes the clusters of preventative measure items with items listed in order of importance within each cluster.

Figure 7 Preventative Measure Clusters

Clusters	*Individual Items*
Academic Assistance	Individual Help At School
	Less Emphasis On Evaluation
	Practical Subjects
	Concern About Progress
Positive Environment	Interesting Subjects
	Friendlier School Atmosphere
	Teacher Encouragement
Rule Enforcement	Tougher Attendance Policy

Factor analysis helped establish three main clusters of preventative measure items. The three factors identified are described as interventions based upon (1) academic assistance, (2) positive environment, and (3) rule enforcement. Respondents preferred interventions relating to academic assistance and positive environment far more than those relating to rule enforcement.

The central items constituting 'academic assistance' include receiving individual help for academic problems, less emphasis on evaluation, the availability of more practical subjects, and concern shown about academic progress. The

combination of these core items suggests that at-risk students want meaningful classes, they want their progress to be closely monitored, and they want help when needed. Academic assistance as a preventative measure involves reducing the emphasis on passing and failing; responses of dropouts indicate that evaluative practice is viewed negatively by many at-risk students. Counselling and encouragement from family also fall within this cluster but are not considered by dropouts to be critical.

Influencing the 'positive environment' of the school describes another cluster of preventative measure items. This group of items addresses affective needs rather than cognitive needs. The items included in this cluster reflect a desire for a more positive social and learning environment. The central item is the availability of more interesting and engaging courses; other items include a friendlier atmosphere at school, more teacher encouragement, and more encouragement from friends.

A third cluster was composed of items related to attendance and discipline policy. These preventative measure items involve the rules and regulations that are imposed by the school. This cluster differs from the other clusters because it describes items which do not relate specifically to academic progress. However, this group of items is more similar to the previous group because it addresses concerns about school environment. Attendance policy is considered to be important by many dropouts, while policy related to discipline is viewed as less significant.

(F) Implications

Over a period of time spanning several years, at-risk students develop strong negative feelings about the benefits of schooling; in essence, they do not see the point of going to school. Truancy, lack of effort, and a desire to earn money are more obvious symptoms of the school's inability to make a difference with these students. It has been suggested that students who do not 'bond' or 'connect' with the school will inevitably drop out (Weber, 1988). Students need to have a reason to stay in school.

Those who find that school knowledge is not credible or meaningful soon fall into a pattern of school behavior that eventually leads to school withdrawal.

Many school systems have implemented and are implementing structural changes in their schools to help increase the likelihood that at-risk students will choose to stay in school. Wehlage, Smith, and Lipman (1992) evaluated some of the restructuring efforts of certain urban high schools to ascertain the degree to which real change had occurred in these schools. They found that restructuring, largely, had been unsuccessful; previous methods and practices had been left virtually unaltered. The authors of the study concluded that fundamental, and not supplemental, changes were necessary in order to make a difference with at-risk students. Three desired criteria in terms of student outcomes were outlined: (1) a sense of student membership in school, (2) student engagement in authentic work, and (3) valid assessment of student performance. In other words, students want to identify and establish ties with their school, participate in meaningful academic activities, and be evaluated fairly and legitimately. Natriello, Pallas, McDill, and McPartland (1989) suggested that a combination of (1) academic, and (2) affective strategies would be most effective to help keep students in school. Their dropout prevention program is based upon academic strategies designed to increase school achievement and affective strategies which emphasizes the promotion of positive interpersonal relationships in school. Finn (1989), as communicated by his early school leaving model, also views dropout as a function of a student's involvement in school. In his model, student involvement encompasses student identification with the school in two ways: (1) the idea of valuing success in scholastic terms, and (2) the idea of belongingness.

The recommendations by Wehlage et al (1992) and Natriello et al (1989), and the model by Finn (1989) stress the importance of two fundamental needs of the at-risk student - a sense of 'academic fulfillment' and a sense of 'social belonging'. The

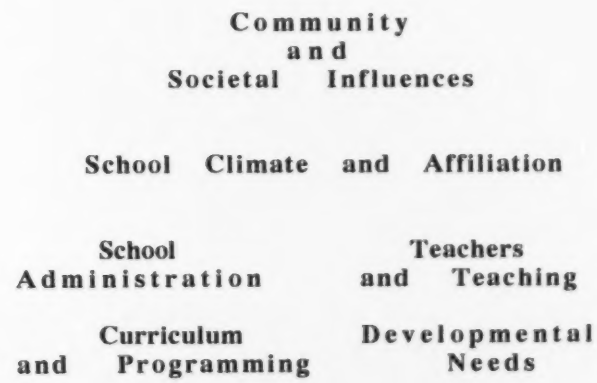
findings of this study also suggest that to increase the holding power of the school, a combination of two inter-related approaches should be used: one focusing upon the immediate learning demands of the student, and the other establishing a supportive environment within which academic achievement is encouraged.

Students leave school for a number of different reasons and patterns of school leaving begin in the earliest school years. Therefore, an effective dropout prevention program should be comprehensive and it should be implemented when children begin their schooling. Interventions should respond to the academic needs of students and/or encourage the growth of a supportive school environment. The school dropout prevention program that will be described here is based upon four guidelines. First, the program must be flexible to meet the needs of different types of dropouts. In essence, the program should consist of a number of different program avenues depending upon the characteristics of the at-risk student. Second, the program should provide an appropriate mix of educational and non-educational services. Prevention should be viewed as a collaborative effort between both in-school and outside agency personnel. Third, students at-risk for dropping out need to be identified accurately and as soon as possible. Dropouts engage in behaviors at a young age that predict early school leaving. Knowledge about and close observation of these behaviors are critical for early identification. Fourth, the program must address both early and late prevention issues and concerns. Although early identification and prevention are important elements of a comprehensive dropout program, interventions must be planned and implemented to respond specifically to the needs of older at-risk students, as well.

The following dropout prevention program is based upon selected research (Natriello et al, 1989; National Dropout Prevention Center, 1990; Wehlage et al, 1992) and discussions held during school counsellor workshop sessions in Edmonton, Alberta during the summer of 1992. Forty counsellors with an average of twenty

years school-related experience met to discuss possible solutions for the school dropout problem. Six solution groups were formed to organize and facilitate discussion about dropout issues concerning: (1) school administration, (2) teachers and teaching, (3) curriculum and programming, (4) student developmental needs, (5) community and societal issues, and (6) school climate and affiliation. Figure 8 depicts proposed relationships among the different issues that impact upon early school leaving.

Figure 8 Early School Leaving Issues



The following strategies and interventions are organized via the six issues shown in Figure 8.

School Administration

(1) Increase the involvement of school trustees in the everyday operations of the school.

(2) Increase opportunities for student participation in school policy and management.

(3) Determine specific retention policies and implement them on an individual student basis.

(4) Stress purposeful in-school suspensions when disciplinary measures of this kind are necessary. Involve parents directly.

(5) Limit the size of new school building projects. Student population should be kept below 800.

Teachers and Teaching

(1) Implement alternate teaching strategies such as co-operative learning and consider individual learning styles through the use of multi-instructional approaches. De-emphasize textbook reading and lecture approaches especially in junior high school.

(2) Understand the characteristics of at-risk students and develop the necessary communication skills to work effectively with these students.

(3) Establish disciplinary practices that involve student decision-making and focus on the 'whole' student.

(4) Motivate students through meaningful and authentic learning. Allow students to apply knowledge and skill and de-emphasize memorization of facts and procedures.

Curriculum and Programming

(1) Implement a continuum of successful and enjoyable learning experiences that begins with a quality Kindergarten program within a caring environment.

(2) Incorporate authentic reading and writing programs that respond to individual learning styles and developmental idiosyncrasies.

(3) Stress a curriculum that is (a) relevant --personally meaningful, socially useful, and connects learning with real life, and (b) de-emphasizes repetition, drill, and worksheet seat work.

(4) Provide individualized curriculum and instruction whenever possible including self-paced competency-based programs.

(5) Emphasize flexibility and availability of programming and scheduling options for all students.

(6) Implement an evaluation system that broadens the concept of successful performance and recognizes incremental gains, expended effort, and creativity.

(7) Provide alternative approaches for reporting and communicating student evaluation including checklists, written reports, oral interviews, and individual contract descriptions.

Student Developmental Needs

(1) Develop pro-social skills and self-esteem on a continuous basis beginning in Kindergarten.

(2) Establish peer-support and peer tutoring networks to provide support for students having personal and/or academic difficulties.

(3) Provide academic and personal counselling via a designated teacher throughout the school career of individual students. Pair teams of teachers with groups of students to facilitate the development of long-term relationships.

(4) Establish parent support groups for high-risk students.

School Climate and Affiliation

(1) Stress the attractiveness of the school's appearance by involving both the students and staff with displays of art, science work, etc.

(2) Allow student input for various everday functions like announcements and music during class breaks.

(3) Provide varied opportunities for in-school and extracurricular activities.

(4) Establish a safe, orderly, and friendly atmosphere within the school.

Community and Societal Influences

(1) Encourage parental assistance and involvement in school matters on an ongoing basis. Communicate with parents about positive aspects of student performance.

(2) Establish mentoring relationships with adults outside of the school as well as school personnel.

(3) Provide career education and counselling, and workforce readiness through job shadowing and work experience programs.

(4) Invite community and business involvement and collaboration with the school at all levels of participation.

(G) Summary

(1) Many student characteristics have been found to be associated with early school leaving. Certain characteristics are identified reliably by the time a student reaches Grade Seven. Students are at-risk for dropping out if they have been (a) achieving consistently well below their peers, (b) truant or giving minimal effort on school assignments, (c) held back for one or more grades, (d) thinking about dropping out of school, or (e) transferred between schools on more than one occasion.

Schools should closely monitor those students who display or possess any of the mentioned at-risk characteristics. Teachers should be aware of those students who have been identified as potential dropout students. Interviews should be arranged with at-risk students as early as Grade Seven to discuss the implications of the at-risk characteristics that these students display or possess.

(2) Students leave school early for various reasons. Several patterns of school leaving have been identified. School leaving can be described as primarily based upon either (a) poor academic performance, (b) disillusionment with school, (c) work or independence needs, or (d) personal problems.

Administrators and teachers should be aware that many different reasons for dropping out are given by students. Each situation of early school leaving is unique. However, certain patterns are evident and should be noted. Most school leaving is associated with school-related factors. This suggests that individual schools can be very influential for reducing the incidence of dropping out.

(3) Students who have left school early state that certain preventative measures could have prolonged their stay in school. Many preventative measures were suggested. Two main categories of preventative measures emerge from the responses of dropouts -those related to (1) academic assistance, and (2) positive environment.

Keeping at-risk students in school longer is dependent upon providing a friendly, supportive learning environment within which academic help and guidance is readily available. Dropping out is not inevitable. Most dropouts persevere in school long after they begin to think about leaving school. At-risk students are influenced most by interventions that address their academic difficulties at a personal level.

APPENDIX A

EARLY SCHOOL LEAVERS SURVEY

REASONS FOR LEAVING SCHOOL ITEMS

(a) school subjects were boring

(b) I did not get along with teachers

(c) I did not like being at school

(d) most of my friends were not in school

(e) I had family-related problems

(f) I had my own personal problems

(g) school subjects were meaningless for me

(h) I had problems with school rules and regulations

(i) I skipped classes a great deal

(j) I wanted to be more independent

(k) my family was not concerned about my schooling

(l) I had problems with alcohol or drugs

(m) school subjects were too difficult

(n) I did not get along with other students

(o) I had poor grades in school

(p) I wanted to earn money for myself

(q) I had to support my family

(r) I did not give school enough effort

(s) I wanted to get married

(t) I was pregnant

APPENDIX B

EARLY SCHOOL LEAVERS SURVEY

PREVENTATIVE MEASURE ITEMS

"I would have stayed in school had there been . . . "

(a) more interesting subjects

(b) more encouragement from teachers

(c) a friendlier atmosphere in school

(d) more encouragement from friends

(e) some help from a counselling service

(f) more practical subjects

(g) consistent discipline in school

(h) a tougher attendance policy

(i) more encouragement from family

(j) more individual help at school

(k) less emphasis on passing or failing

(l) some financial help from family

(m) concern shown about my academic progress

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